

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on  
reverse side)

FORM APPROVED  
OMB NO. 1004-0136  
Expires February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1. TYPE OF WORK

DRILL ☒

DEEPEN ☐

2. TYPE OF WELL

OIL  
WELL ☒

GAS  
WELL ☐

OTHER ☐

SINGLE  
ZONE ☒

MULTIPLE  
ZONE ☐

3. NAME OF OPERATOR

Shenandoah Energy Inc.

4. ADDRESS AND TELEPHONE NO.

Phone: 435-781-4341

11002 East 17500 South

Fax: 435-781-4329

Vernal, Utah 84078

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface

2605.9' FSL 1850.5' FEL

At proposed prod. zone

Same

4450461N  
639058E

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

2.5 miles West of Redwash Utah

7. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drg. unit line if any)

1353.3'

8. NO. OF ACRES IN LEASE

1875.8

9. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

10. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING COMPLETED,

OR APPLIED FOR ON THIS LEASE, FT.

±1000'

11. PROPOSED DEPTH

5950'

12. ROTARY OR CABLE TOOLS

Rotary

13. ELEVATIONS (Show whether DF, RT, GR, etc.)

5470.3'

14. APPROX DATE WORK WILL START\*

A.S.A.P.

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	K55 8 5/8" new	24#	450'	130 sx - Class G
7 7/8"	K55 5 1/2" new	15.5#	5950'	630 sx - Class G

Shenandoah Energy Inc. proposes to drill a well to 5950' to test the Green River. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

See Onshore Order No. 1 attached.

Please be advised that Shenandoah Energy Inc. is considered to be the operator of the above mentioned well. Shenandoah Energy Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

Bond coverage for this well is provided by Bond No. 0969. The principal is Shenandoah Energy Inc. via surety as consent as provided for in 43 CFR 3104.2.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program if any.

24.

SIGNED John Busch John Busch

TITLE Red Wash Oper. Rep.

DATE Feb 15 - 2000

(This space for Federal or State office use)

PERMIT NO.

43047-33499

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

Bradley G. Hill

TITLE

BRADLEY G. HILL

RECLAMATION SPECIALIST II

DATE

3/7/00

\*See Instructions On Reverse Side

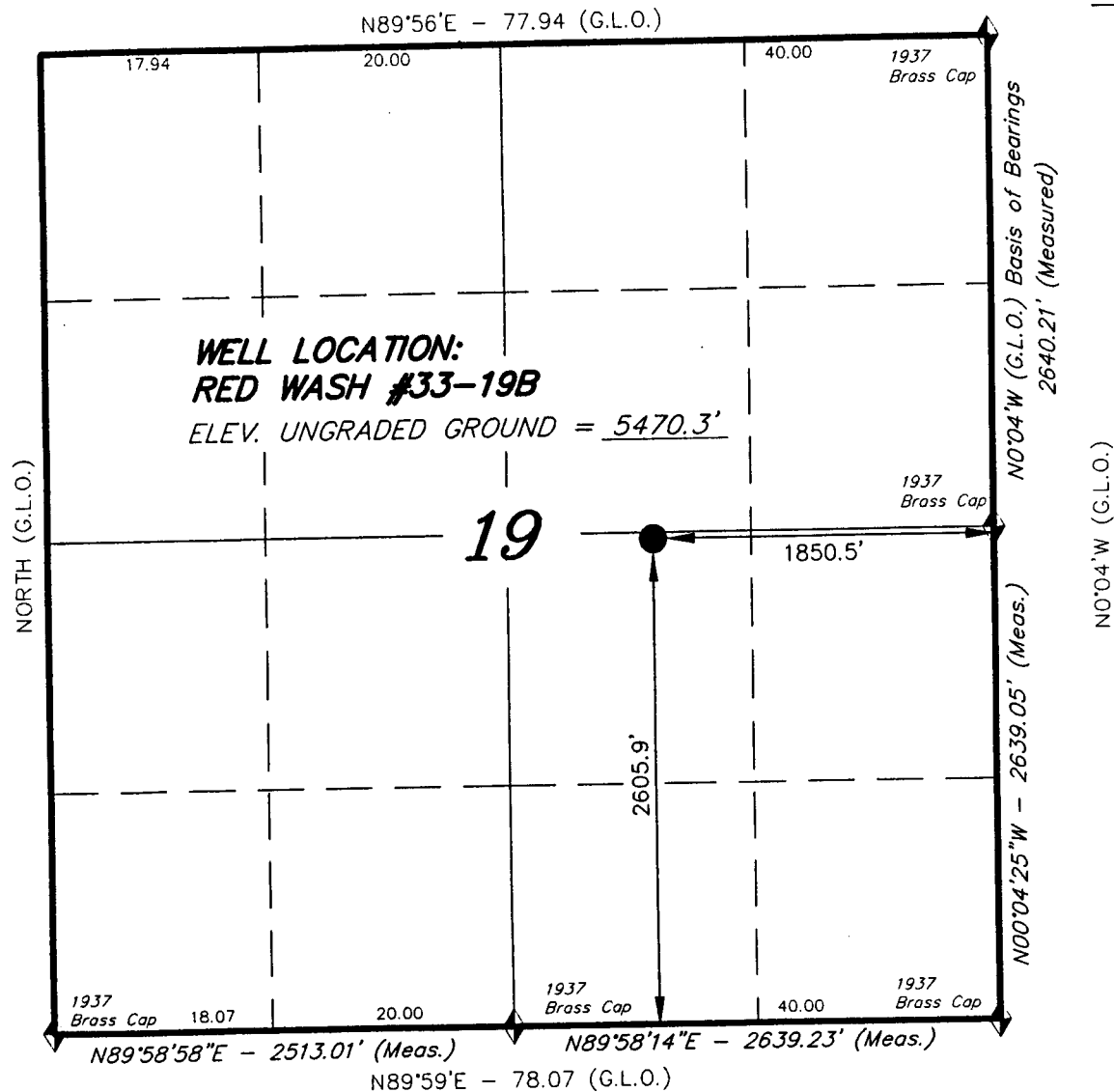
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Federal Approval of this  
Action is Necessary

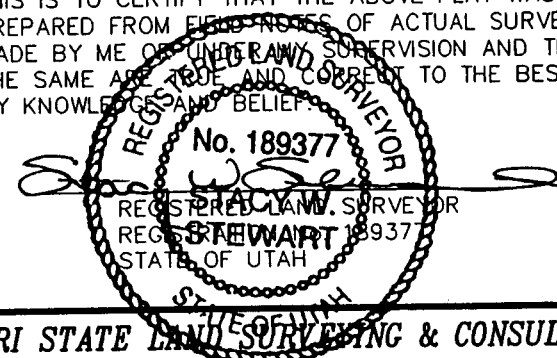
**T7S, R23E, S.L.B.&M.**

***SHENANDOAH ENERGY, INC.***

WELL LOCATION, RED WASH #33-19B,  
LOCATED AS SHOWN IN THE NW 1/4 SE 1/4  
OF SECTION 19, T7S, R23E, S.L.B.&M.  
UINTAH COUNTY, UTAH.



THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS  
PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS  
MADE BY ME OR UNDER MY SUPERVISION AND THAT  
THE SAME ARE TRUE AND CORRECT TO THE BEST OF  
MY KNOWLEDGE AND BELIEF.



**TRI STATE LAND SURVEYING & CONSULTING**  
38 WEST 100 NORTH - VERNAL, UTAH 84078  
(435) 781-2501

◆ = SECTION CORNERS LOCATED  
BASIS OF ELEV; U.S.G.S. 7-1/2 min QUAD (RED WASH)

SCALE: 1" = 1000'	SURVEYED BY: D.S.
DATE: 1-28-00	WEATHER: FAIR
NOTES:	FILE #

DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1  
Approval of Operations on Onshore  
Federal Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

1. Formation Tops

The estimated tops of important geologic markers are as follows:

<u>Formation</u>	<u>Depth</u>	<u>Prod. Phase Anticipated</u>
Uinta	Surface	
Green River	3030'	
Mahogany Ledge	3810'	
Mesa Marker	5680'	Oil

2. Anticipated Depths of Oil Gas Water and Other Mineral Bearing Zones

The estimated depths at which the top and bottom of the anticipated water, oil, gas. Or other mineral bearing formations are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Oil/Gas	Green River	5950'

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

All water shows and water-bearing sands will be reported to the BLM in Vernal, Utah. Copies of State of Utah form OGC-8-X are acceptable. If no flows are detected, samples will be submitted to the BLM along with any water analyses conducted.

DRILLING PROGRAM

3. Operator's Specification for Pressure Control Equipment:

- A. 2,000 psi W.P. Double Gate BOP or Single Gate BOP (schematic attached)
- B. Functional test daily
- C. All casing strings shall be pressure tested (0.2 psi/foot or 1500 psi, whichever is greater) prior to drilling the plug after cementing; test pressure shall not exceed the internal yield pressure of the casing.
- D. Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 70 percent of internal yield pressure of casing whichever is less. Tests shall be done at the time of installation, prior to drilling out and weekly. All tests shall be for a period of 15 minutes

4. Casing Program

	<u>Depth</u>	<u>Hole Size</u>	<u>Csg Size</u>	<u>Type</u>	<u>Weight</u>
Surface	450'	12-1/4"	8-5/8"	K-55	24lb/ft (new)
Production	5950'	7-7/8"	5-1/2"	K-55	15.5lb/ft (new)

5. Auxiliary Equipment

- A. Kelly Cock – yes
- B. Float at the bit – no
- C. Monitoring equipment on the mud system – visually
- D. Full opening safety valve on the rig floor – yes
- E. Rotating Head – yes
- F. The blooie line shall be at least 6" in diameter and extend at least 100' from the well bore into the reserve/blooie pit.
- G. Blooie line ignition shall be provided by a continuous pilot (ignited when drilling below 500').

## DRILLING PROGRAM

- 
- H. Compressor shall be tied directly to the blooie line through a manifold.
  - I. A mister with a continuous stream of water shall be installed near the end of the blooie lines for dust suppression.

6. Proposed circulating medium

Surface hole will be drilled with air, air/mist, foam, or mud depending on hole conditions. Drilling below surface casing will be with water based drilling fluids consisting primarily of fresh water, bentonite, lignite, caustic, lime, soda ash and polymers. No chromates will be used. It is not intended to use oil in the mud, however, in the event it is used, oil concentration will be less than 4% by volume. Maximum anticipated mud weight is 9.5 ppg.

No minimum quantity of weight material will be required to be kept on location.

PVT/Flow Show will be used from base of surface casing to TD.

Gas detector will be used from surface casing depth to TD.

7. Testing, logging and coring program

- A. Cores – none anticipated
- B. DST – none anticipated

Logging – Mud logging – 4500 to TD  
GR-SP-Induction  
Neutron Density  
MRI

- C. Formation and Completion Interval: Green River interval, final determination of completion will be made by analysis of logs.  
Stimulation – Stimulation will be designed for the particular area of interest as encountered.

DRILLING PROGRAM

8. Cementing Program

<u>Casing</u>	<u>Volume</u>	<u>Type &amp; Additives</u>
Surface	130 sx	Class "G" single slurry mixed to 15.6 ppg, yield = 1.19 cf/sx. Fill to surface with 160 cf (130 sx) calculated. Tail plug used. Allowed to set under pressure
Production	630 sx*	Design Parameters: TD = 5950', Tail top @ 4200', add 50% excess for hole washout. Lead yield = 3.82 cf/sx. Tail yield = 1.34 cf/sx <u>Lead Cement</u> Class G & additives mixed to 11 ppg plus 50% excess = ~290 sxs <u>Tail Cement</u> Class G & additives mixed to 14.8 ppg plus 50% excess = ~340 sxs

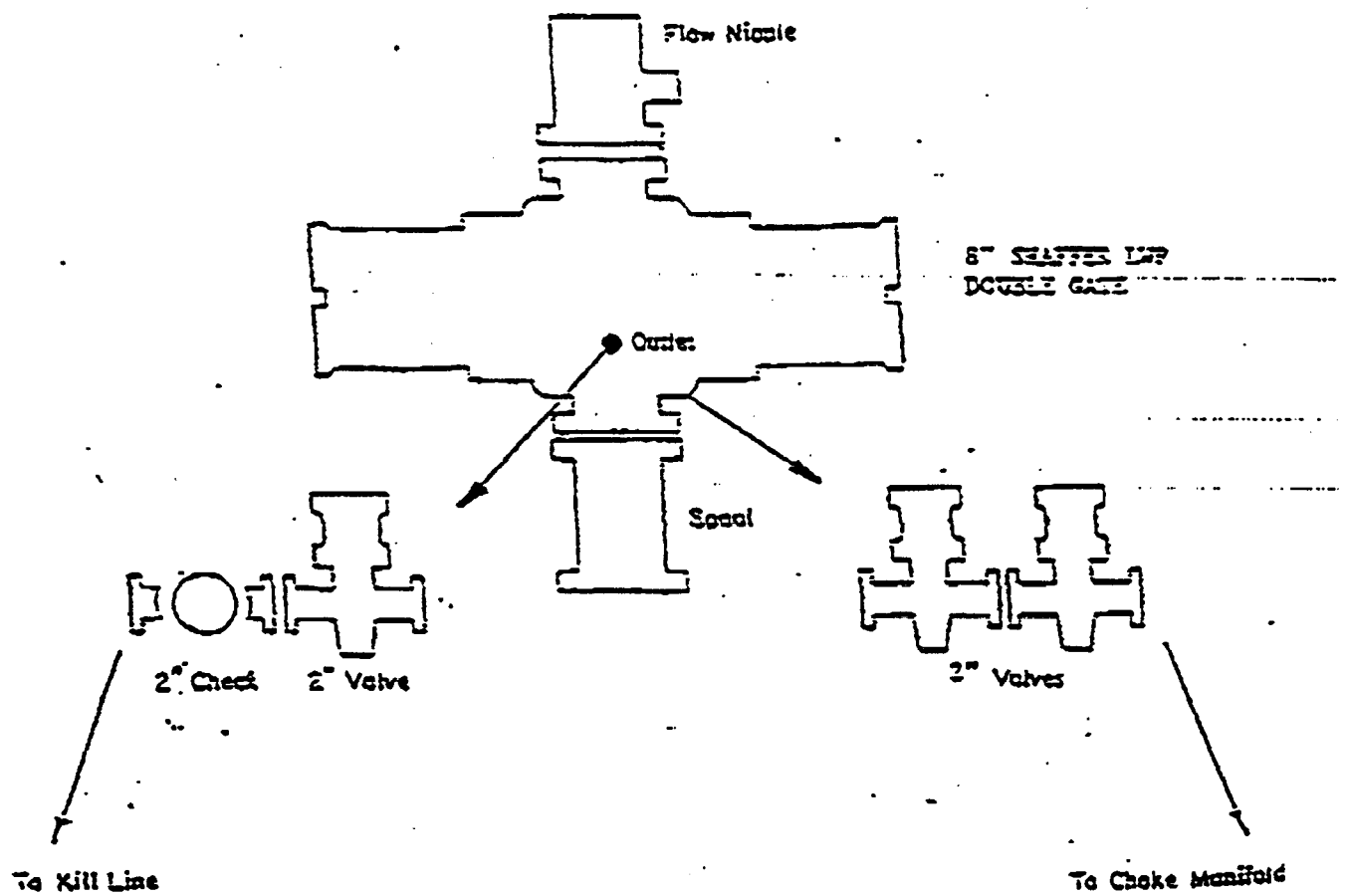
Actual volumes will vary and be calculated based on the open hole caliper logs. Sufficient cement excess will be pumped in an attempt to bring cement to the surface

9. Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards

No abnormal temperatures or pressures are anticipated. No H2S has been encountered in or known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom hole pressure equals approximately 2560 psi. Maximum anticipated bottom hole temperature is 140° F.

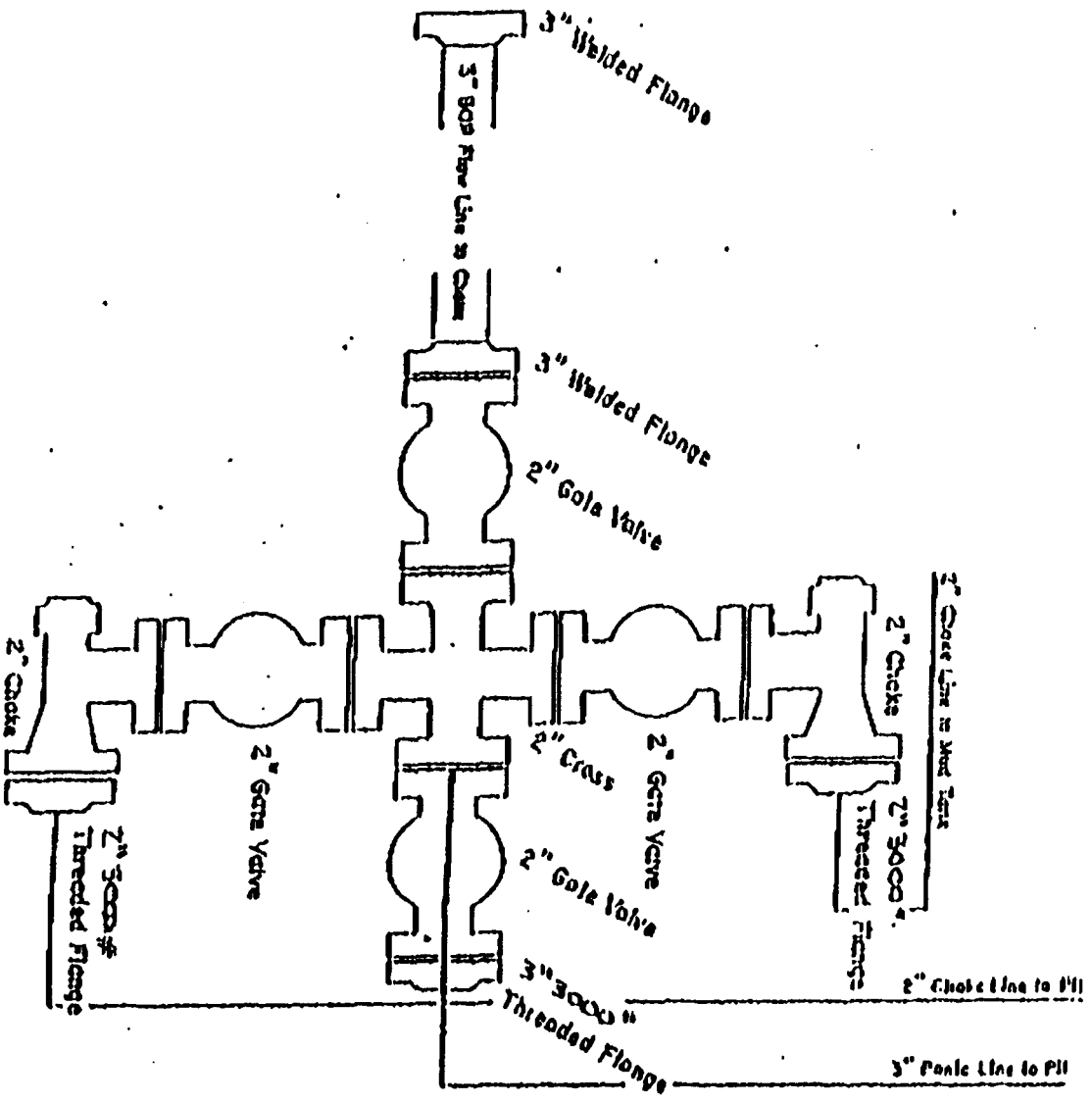
# CHANDLER DRILLING

RIG NO. 1



# CHANDLER DRILLING

FIG NO.7





**Multi-Point Surface Use and Operations Plan**

SHENANDOAH ENERGY INC.  
RED WASH #33-19B  
NW SE SEC. 19, T7S, R23E  
UINTAH COUNTY, UTAH

**1. EXISTING ROADS: Refer to maps "A" & "B"**

- A. Map "A" is the vicinity map showing the Access routes from Red Wash, Utah
- B. Topo Map "B" shows the proposed access road to the pad as well as the existing roads in the immediate area
- C. Occasional maintenance blading and storm repairs will keep roads in good condition.
- D. There shall be no mud blading on the access road. Vehicles may be towed through the mud provided they stay on the roadway.
- E. All road construction and maintenance will conform to standards identified in "Surface Operating Standards for Oil and Gas Exploration and Development" (Gold Book) U.S. Department of the Interior-BLM and U.S. Department of Agriculture-Forest Service; January 1989.

**2. PLANNED ACCESS ROADS: Refer to Map "B"**

Approximately 0.25 mile of new road construction will be required for access to the proposed location.

- A. Width - maximum 30-foot overall right-of-way with an 18-foot road running surface, crowned & ditched and/or sloped and dipped.
- B. Construction standard - the access road will be constructed to same standards as previously accepted in this area.

The road will be constructed to meet the standards of the anticipated traffic flow and all weather requirements. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well constructed and safe road.

Traveling off of the thirty (30) foot right-of-way will not be allowed.

Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or the accumulation of debris in the drainage crossing nor shall the drainages be blocked by the roadbed. Erosion of the drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts.

Upgrading shall not be allowed during muddy conditions.

Should mud holes develop, they will be filled in and detours around them avoided.

- C. Maximum grade - grade will be less than 8%.
- D. Drainage design - the access road will be crowned and ditched or sloped and dipped, and water turnouts installed as necessary to provide proper drainage along the access road route.
- E. Turnouts - none.
- F. Culverts – none
- G. Surface materials – any surfacing materials required will be purchased from a local contractor having a permitted source of materials in the area. None are anticipated at this time.
- H. Gates, cattleguards or fence cuts - none required
- I. The proposed access road has been centerline flagged.
- J. Dust will be controlled on the roads and locations during construction and drilling by periodic watering of the roads and locations.

### **3. LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS**

Please refer to map "C".

### **4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES OWNED BY SHENANDOAH ENERGY INC. WITHIN A ONE MILE RADIUS:**

- A. Existing
  - 1. Tank batteries - see Map "C"
  - 2. Production facilities - see Map "C"
  - 3. Oil gathering lines – see Map "C"

4. Gas gathering lines - see Map "C"
5. Injection lines – see Map "C"
6. Disposal lines – see Map "C"

B. New Facilities Contemplated: in the event of production the following will be shown.

1. Proposed location and attendant lines, by flagging, if off well pad.
2. Dimensions of facilities.
3. Construction methods and materials.
4. Protective measures and devices to protect livestock and wildlife.
5. All buried pipelines will be buried to depth of 3 feet except at road crossings where they will be buried to a depth of 4 feet.
6. Construction width of the right-of-way/pipeline route shall be restricted to 50 feet of disturbance.
7. Shenandoah Energy Inc. shall condition pipeline right-of-ways in a manner to preclude vehicular travel upon said rights-of-way, except for access to pipeline drips and valves.
10. The area used to contain the proposed production facilities will be built using native materials. If these materials are not acceptable arrangements will be made to acquire appropriate materials from private sources.
11. A dike will be constructed completely around any those production facilities which contain fluids (i.e. production tanks, produced water tanks etc.). These dikes will be constructed of compacted subsoil, be impervious, hold 110% of the capacity of the largest tank and be independent of the back cut.
12. All permanent (onsite for six months or longer) above-the-ground constructed or installed, including pumping units, will be painted a flat non-reflective, earthtone color to match one of the standard environmental colors, as determined by the Five State Rocky Mountain Interagency Committee. All production facilities will be painted within six months of installation. Facilities required to comply with Occupational Health and Safety Act Rules and Regulations will be excluded from this painting requirement.

The required paint color is Carlsbad Canyon (2.5Y 6/2).

- C. The production (emergency) pit will be fenced.
- D. During drilling and subsequent operations, all equipment and vehicles will be confined to the access road right-of-way and any additional areas as specified in the approved Application for Permit to Drill.
- E. Reclamation of disturbed areas no longer needed for operation will be accomplished by grading, leveling and seeding as recommended by the Bureau of Land Management.
- F. A proposed oil gathering pipeline has been flagged and is shown on Map "D".
- G. Shenandoah Energy Inc. will be responsible for road maintenance from the beginning to completion of operations.

#### **5. Location and Type of Water Supply**

- A. Wonsits Valley Federal Unit water supply wells 1965 Application #36125
- B. Water well in Ouray operated by A-1 Tank and Brine, Permit #43-8496

#### **6. Source of Construction Materials**

- A. No construction materials are needed for drilling operations. In the event of production, the small amount of gravel needed for facilities will be hauled in by truck from a local gravel pit over existing access roads to the area. No special access other than for drilling operations and pipeline construction is needed.

#### **7. Methods of Handling Waste Materials:**

- A. Cuttings - the cuttings will be deposited in the reserve/blooiie pit.
- B. Drilling fluids - including salts and chemicals will be contained in the reserve/blooiie pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within ninety (90) days after termination of drilling and completion activities.

In the event adverse weather conditions prevent removal of the fluids from the reserve pit within this time period, an extension may be granted by the Authorized Officer upon receipt of a written request from Shenandoah Energy

Inc.

The reserve pit will be constructed so as not to allow discharge and will be lined with a 12 mil plastic liner.

- C. Produced fluids - liquid hydrocarbons produced during completion operations will be placed in test tanks on the location. Produced waste water will be confined to a lined pit (reserve pit) or storage tank for a period not to exceed ninety (90) days after initial production. During the ninety (90) day period, in accordance with Onshore Order 7, an application for approval of a permanent disposal method and location, along with the required water analysis, shall be submitted for the Authorized Officer's approval. Failure to file an application within the time frame allowed will be considered an incidence of noncompliance.

Any spills of oil, gas, salt water or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

- D. Sewage - self-contained, chemical toilets will be provided for human waste disposal. Upon completion of operations, or as needed, the toilet holding tanks will be pumped and the contents thereof disposed of in the nearest, approved, sewage disposal facility.
- E. Garbage and other waste material - garbage, trash and other waste materials will be collected in a portable, self-contained and fully-enclosed trash cage during drilling and completion operations. Upon completion of operations (or as needed) the accumulated trash will be disposed of at an authorized sanitary landfill. No trash will be burned on location or placed in the reserve pit.
- F. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned up and removed from the well location. No adverse materials will be left on the location. Any open pits will be fenced during the drilling operation and the fencing will be maintained until such time as the pits are backfilled.
- G. The reserve and/or production pit will be constructed on the existing location and will not be located in natural drainages where a flood hazard exists or surface runoff will destroy or damage the pit walls. All pits will be constructed so as not to leak, break, or allow the discharge of liquids therefrom.
- H. Hazardous materials: No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000# will be used, produced, stored, transported or disposed of annually in association with the drilling, testing or completing of wells within the Red Wash area. Furthermore, extremely hazardous substances, as defined in 40 CFR 355, in threshold

planning quantities, will not be used, produced, stored transported or disposed of in association with the drilling, testing or completing of wells within this area.

**8. Ancillary Facilities:** None anticipated

**9. Wellsite Layout:**

- A. Plat #1 shows the drill site layout as staked. Cross sections have been drafted to visualize the planned cuts and fills across the location. An average minimum of six (6) inches of topsoil will be stripped from the location (including areas of cut, fill, and/or subsoil storage) and stockpiled for future reclamation of the well site. Topsoil stockpile will be seeded with a seed mixture to be recommended by the B.L.M. Refer to Figure #1 for the location of the topsoil and subsoil stockpiles.
- B. Plat #2 is a diagram showing the rig layout. No permanent living facilities are planned. There will be one (1) trailer on location during drilling operation for the toolpusher.
- C. A diagram showing the proposed production facility layout will be submitted to the Authorized Officer via Sundry Notice (Form 3160-5) for approval of subsequent operations.
- D. Prior to the commencement of drilling operations, the reserve pit will be fenced on three (3) sides using 39 inch net wire with at least one strand of barbed wire on top of the net wire.
  - 1. The net wire shall be no more than 2-inches above the ground. The barbed wire shall be 3-inches above the net wire. Total height of fence shall be at least 42-inches.
  - 2. Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times
  - 3. Standard steel, wood, or pipe posts shall be used between the corner braces. The maximum distance between any two (2) posts shall be no greater than sixteen (16) feet.
  - 4. All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The fourth side of the reserve pit will be fenced immediately upon removal of

the drilling rig and the fencing will be maintained until the pit is backfilled.

- F. Any hydrocarbons on the pit will be removed from the pit as soon as possible after drilling operations are completed.

#### **10. Plans for Reclamation of the Surface:**

The B.L.M. will be contacted prior to commencement of any reclamation operations.

##### **A. Production**

1. Immediately upon well completion, the well location and surrounding area(s) will be cleared of all debris, materials, trash and junk not required for production.
2. Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.
3. If a plastic or nylon reinforced pit liner is used, it shall be torn and perforated before backfilling of the reserve pit.
4. Before any dirt work to restore the location takes place, the reserve pit will be completely dry and all cans, barrels, pipe, etc. will be removed.

Other waste and spoil materials will be disposed of immediately upon completion of drilling and workover activities.

5. The flare pit and that portion of the location and access road not needed for production facilities/operations will be reclaimed within ninety (90) days from the date of well completion, weather permitting.
6. If the well is a producer, Shenandoah will: Upgrade and maintain access roads as necessary prevent soil erosion, and accommodate year traffic. Reshape areas unnecessary to operations. distribute topsoil, disk and seed all disturbed area outside the work area according to the BLM recommended seed mixture.

If the well is abandoned/dry hole, Shenandoah will: Restore the access road and location to approximately the original contours. During reclamation of the site, push the fill material into cuts and up over the backslope. Leave no depressions that will trap water or form ponds. Distribute topsoil evenly over the location, and seed according to the above seed mixture. The access road and location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.

Seedbed will be prepared by disking. Seed will be drilled on contours at a depth no greater than one-half inch (1/2"). In areas that cannot be drilled, seed will be broadcast at double the seeding rate and harrowed into soil. Certified seed will be used whenever available.

Fall seeding will be completed after September 1 and prior to prolonged ground frost.

7. Upon completion of backfilling, leveling and recontouring, the stockpiled topsoil will be evenly spread over the reclaimed area(s). Prior to reseeding, all disturbed surfaces will be scarified and left with a rough surface. No depressions will be left that would trap water and form ponds. All disturbed surfaces will be reseeded with a seed mixture to be recommended by the Bureau of Land Management.

Seed will be drilled on the contour to a approximate depth of one-half (1/2) inch. All seeding will be conducted after September 1 and prior to ground frost. Spring seeding will be done after the frost leaves the ground and no later than May 15. If the seeding is unsuccessful, Shenandoah Energy Inc. may be required to make subsequent seedings.

#### B. Dry Hole/Abandoned Location

1. On lands administered by the Bureau of Land Management, abandoned well sites, roads, or other disturbed areas will be restored to near their original condition. This procedure will include:  
ensuring revegetation of the disturbed areas to the specifications of the Bureau of Land Management at the time of abandonment.
2. All disturbed surfaces will be recontoured to the approximate natural contours and reseeded according to BLM specifications. Reclamation of the well pad and access road will be performed as soon as practical after final abandonment and reseeding operations will be performed in the fall following completion of reclamation operations.

#### 11. Surface Ownership:

The well site and proposed access road are situated on surface lands administered by:

Bureau of Land Management  
Vernal, Utah



**12. Other Information:**

A. Topographic features of the area (reference Topographic Map #A)

The majority of the numerous washes and draws in the area are of a non-perennial nature flowing during the early spring run-off and heavy rain storms of long duration which are rare as the normal annual rainfall in the area is only 8".

The flora of the area includes pinon and juniper trees, sagebrush, greasewood, four-wing saltbush, Gambel scrub oak, willow, tamarack, shadscale, indian rice grass, cheatgrass, wheatgrass, curly grass, crested wheatgrass, foxtail, Russian thistle, Kochia, and cacti.

The fauna of the area includes cattle, horses, elk, deer, coyotes, rabbits, rodents, lizards, bull snakes, rattle snakes, water snakes and horned toads. Birds of the area are ground sparrows, bluejays, bluebirds, magpies, ravens, raptors, morning doves, swallows, nighthawks, hummingbirds, and chukar.

B. The surface ownership is federal. The surface use is grazing and petroleum production.

C. 1. The nearest live water is the White River.

2. There are no dwellings in the area. No significant archaeological, historical or cultural sites are known to be present.

3. An archaeological report will be forwarded upon completion.

4. There are no reported restrictions or reservations noted on the oil and gas lease.

Shenandoah Energy Inc.  
Red Wash #33-19B

**13. Lessee's or Operator's Representative:**

John Busch  
Red Wash Area Operations Rep.  
Shenandoah Energy Inc.  
11002 East 17500 South  
Vernal, Utah 84078  
(435)781-4341

**Certification:**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil & Gas Orders, the approved plan of operations, and any applicable Notice to Lessees.

Ballard Petroleum LLC will be fully responsible for the actions of their subcontractors.

A complete copy of the approved Application for Permit to Drill will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

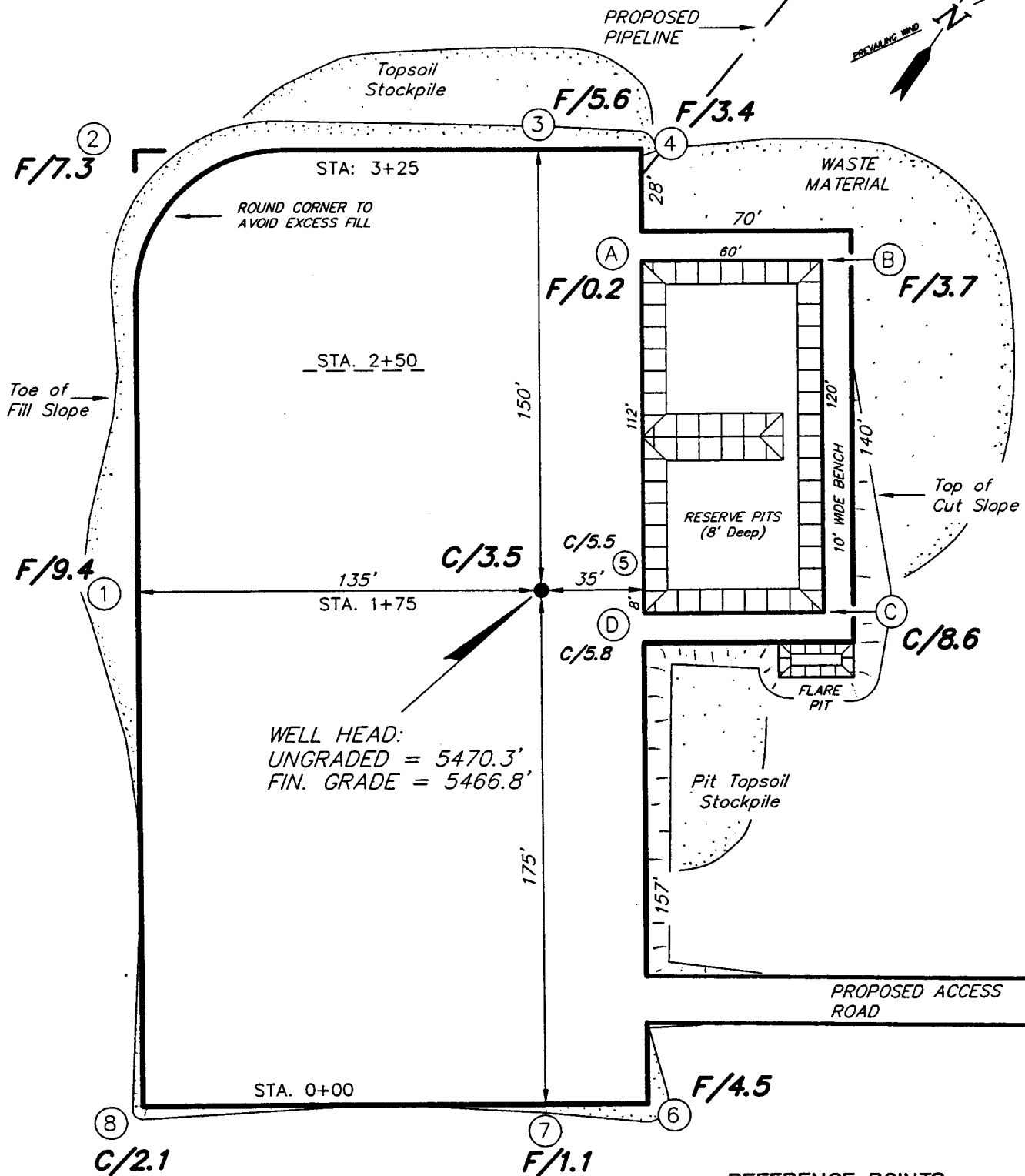
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Ballard Petroleum LLC its' contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

John Busch  
John Busch  
Red Wash Operations Rep

FEB 15-2000  
Date

# SHENANDOAH ENERGY, INC.

RED WASH #33-19B  
SEC. 19, T7S, R23E, S.L.B.&M.



## REFERENCE POINTS

145' NORTHEAST = 5476.3'  
195' NORTHEAST = 5471.8'

SURVEYED BY: D.S.

SCALE: 1" = 50'

DRAWN BY: J.R.S.

DATE: 1-28-00

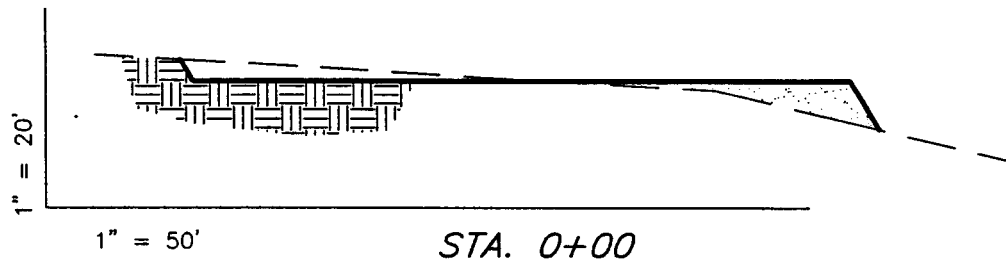
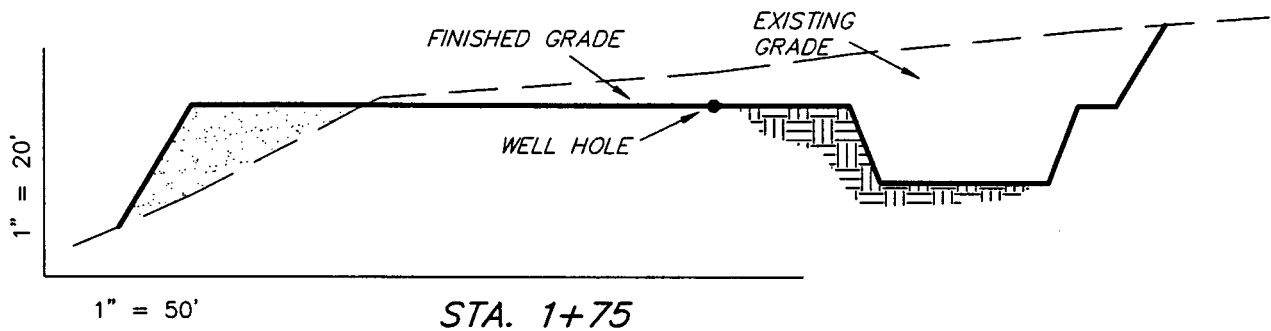
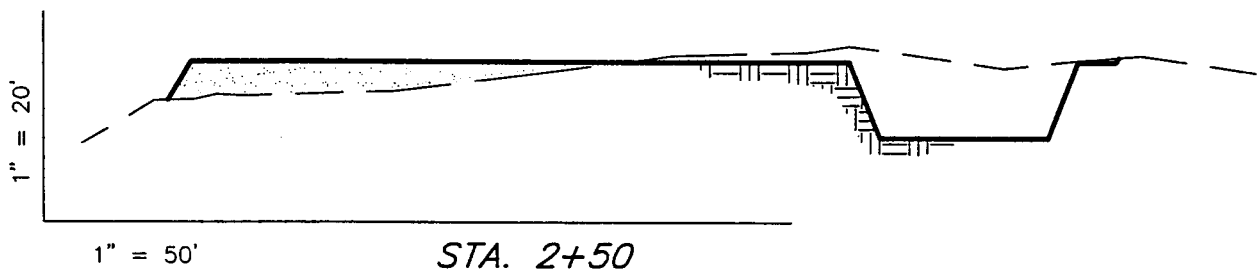
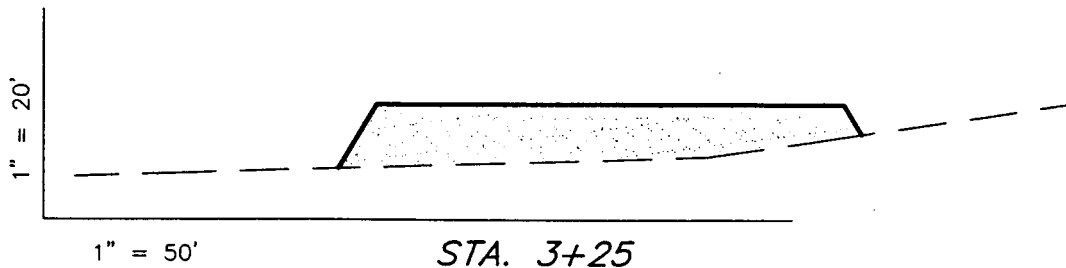
**Tri State**  
Land Surveying, Inc.  
38 WEST 100 NORTH VERNAL, UTAH 84078

(435) 781-2501

# SHENANDOAH ENERGY, INC.

## CROSS SECTIONS

### RED WASH #33-19B



#### APPROXIMATE YARDAGES

CUT = 3,450 Cu. Yds.

FILL = 3,450 Cu. Yds.

PIT = 1,630 Cu. Yds.

6" TOPSOIL = 1,200 Cu. Yds.

SURVEYED BY: D.S.

SCALE: 1" = 50'

DRAWN BY: J.R.S.

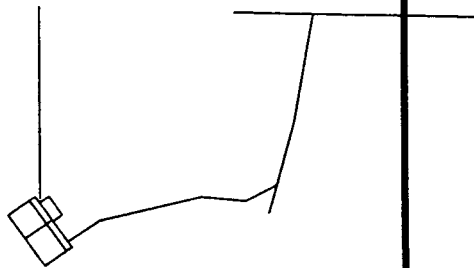
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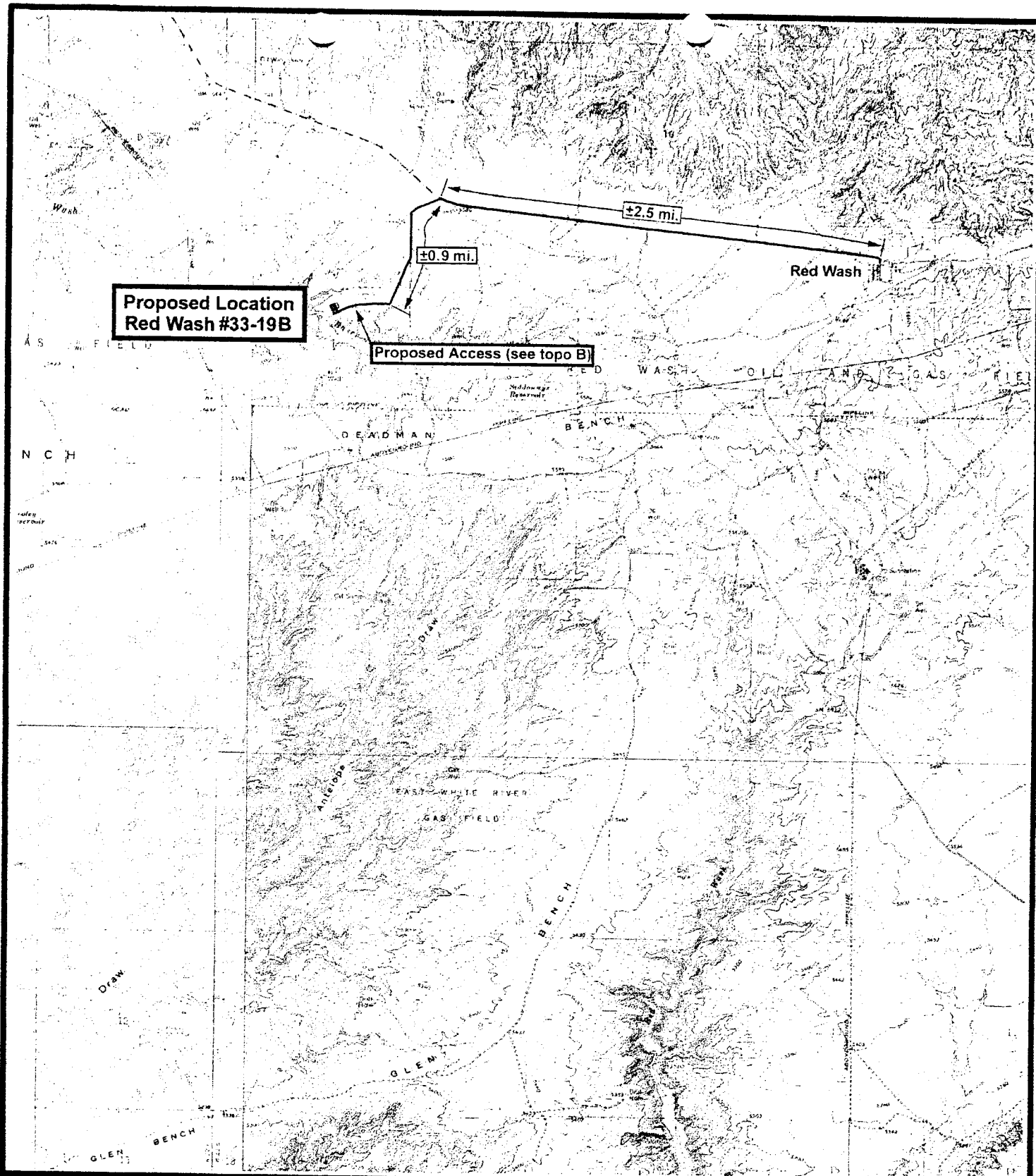
Tri State  
Land Surveying, Inc.  
38 WEST 100 NORTH VERNAL, UTAH 84078  
(435) 781-2501

The Pipeline  
is a guess

3-19B

11-1



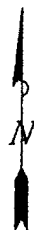


**SHENANDOAH ENERGY INC.**

**RED WASH #33-19B**

**SEC. 19, T7S, R23E, S.L.B.&M.**

**TOPOGRAPHIC MAP "A"**



Drawn By: SS

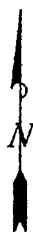
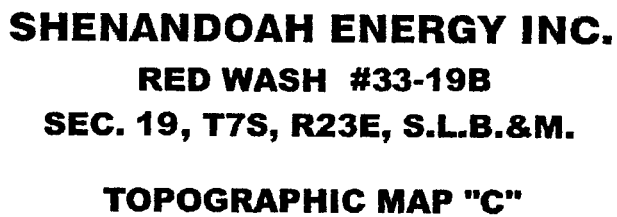
Revision:

Scale: 1" = 4000'

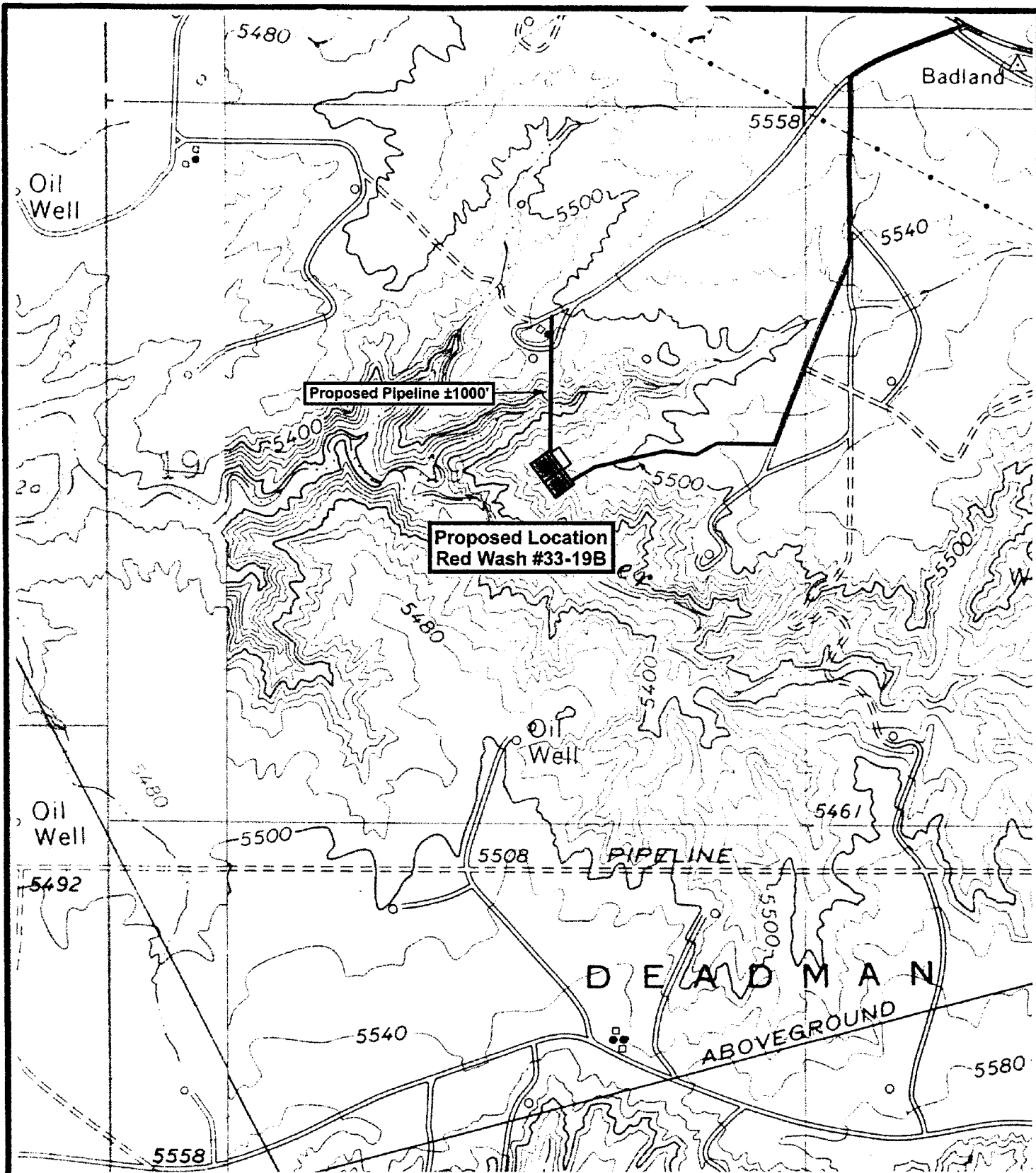
File:

Date: 2-2-00

Tri-State Land Surveying Inc.  
P.O. Box 533, Vernal, UT 84078  
435-781-2501 Fax 435-781-2518



**Tri-State Land Surveying Inc.**  
**P.O. Box 533, Vernal, UT 84078**  
**435-781-2501 Fax 435-781-2518**

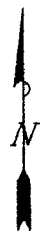


**SHENANDOAH ENERGY INC.**

**RED WASH #33-19B**

**SEC. 19, T7S, R23E, S.L.B.&M.**

**TOPOGRAPHIC MAP "D"**



Drawn By: SS

Revision:

Scale: 1" = 1000'

File:

Date: 2-1-00

**Tri-State Land Surveying Inc.**  
P.O. Box 533, Vernal, UT 84078  
435-781-2501 Fax 435-781-2518



**WORKSHEET**  
**APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 02/29/2000

API NO. ASSIGNED: 43-047-33499

WELL NAME: RWU 33-19B

OPERATOR: SHENANDOAH ENERGY INC ( N4235 )

CONTACT: JOHN BUSCH

PHONE NUMBER: 435-781-4341

**PROPOSED LOCATION:**

NWSE 19 070S 230E

SURFACE: 2606 FSL 1851 FEL

BOTTOM: 2606 FSL 1851 FEL

UINTAH

RED WASH ( 665 )

LEASE TYPE: 1-Federal

LEASE NUMBER: U-02030

SURFACE OWNER: 1-Federal

PROPOSED FORMATION: GRRV

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering		
Geology		
Surface		

**RECEIVED AND/OR REVIEWED:**

☒ Flat  
☒ Bond: Fed<sup>✓</sup>[1] Ind[] Sta[] Fee[]  
(No. <sup>14</sup>0969 )  
☒ Potash (Y/N)  
☒ Oil Shale (Y/N) \*190 - 5 (B)  
☒ Water Permit  
(No. 43-8496 )  
☒ RDCC Review (Y/N)  
(Date: )  
☒ Fee Surf Agreement (Y/N)

**LOCATION AND SITING:**

☐ R649-2-3. Unit Red Wash  
☐ R649-3-2. General  
Siting: \_\_\_\_\_  
☒ R649-3-3. Exception  
☐ Drilling Unit  
Board Cause No: \_\_\_\_\_  
Eff Date: \_\_\_\_\_  
Siting: \_\_\_\_\_  
☐ R649-3-11. Directional Drill

COMMENTS: \_\_\_\_\_

STIPULATIONS: ① Federal Approval



Utah Oil Gas and Mining

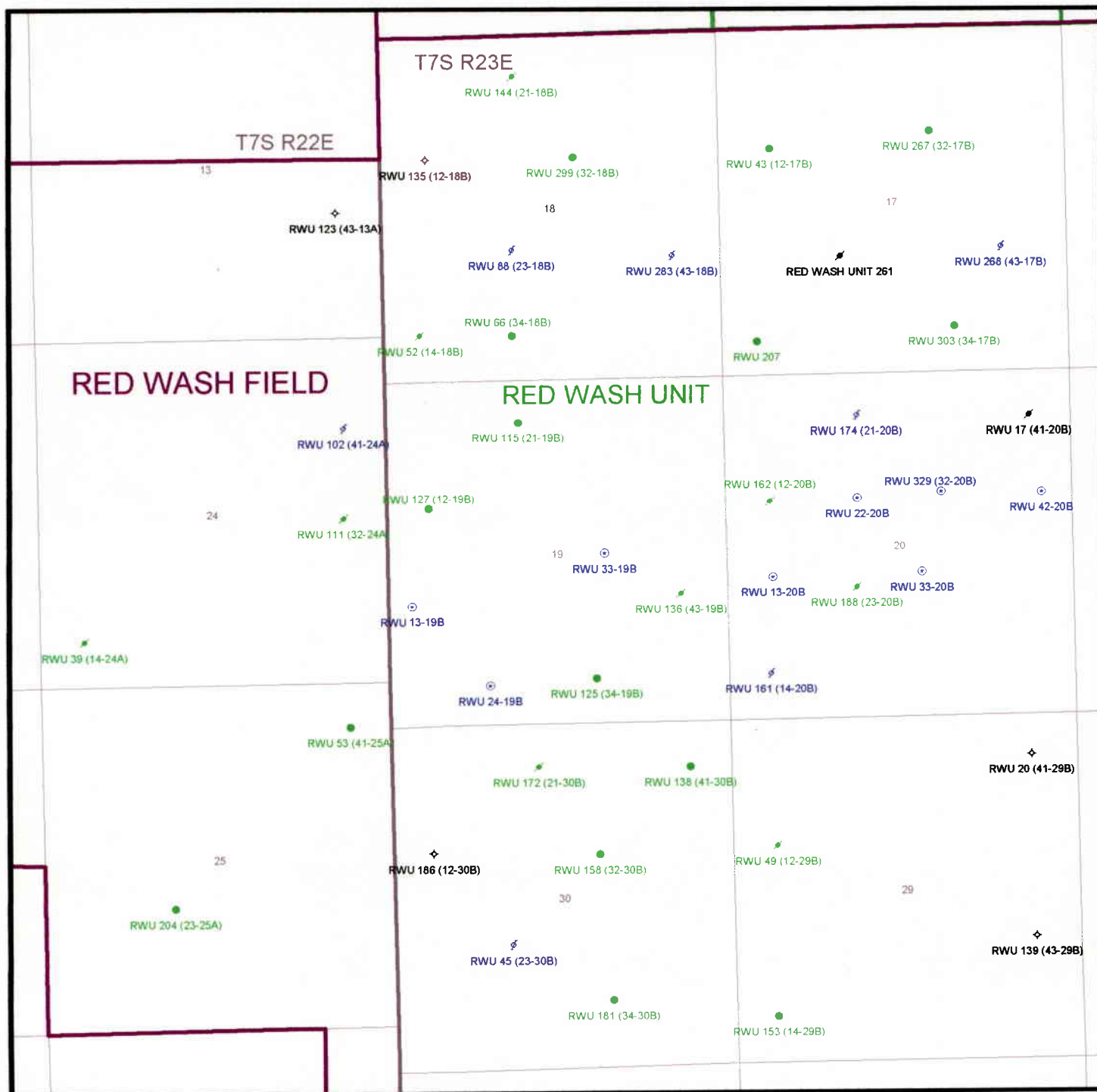
Serving the Industry, Protecting the Environment

OPERATOR: SHENANODAH ENERGY (N4235)

FIELD: RED WASH (665)

SEC. 19, T 7 S, R 23 E

COUNTY: UINTAH UNIT: RED WASH



PREPARED  
DATE: 2-Mar-2000

RECEIVED

MAR 06 2000

DIVISION OF  
OIL, GAS AND MINING

## SHENANDOAH ENERGY INC.

---

11002 East 17500 South  
Vernal, UT 84078  
Phone: (435) 781-4300  
Fax (435) 781-4329

March 2, 2000

Division of Oil, Gas & Mining  
1594 W. N. Temple STE 1210  
Salt Lake City, UT 84114-5801

To Whom It May Concern:

Shenandoah Energy Inc. Red Wash Unit #33-19B is an exception location due to severe topography to the South West of this location. This lease #(U-02030) is under the Red Wash Unit Agreement and all owners are committed under the Unit Agreement.

There are no additional lease owners within 460' of this proposed well. If you have any question please contact John Busch @ (435) 781-4341.

Thank you,



John Busch  
Operations Representative

# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:  
3160  
(UT-922)

March 6, 2000

### Memorandum

To: Assistant District Manager Minerals, Vernal District  
From: Michael Coulthard, Petroleum Engineer  
Subject: 2000 Plan of Development Red Wash Unit,  
Uintah County, Utah.

Pursuant to email between Lisha Cordova, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management. The following wells are planned for calendar year 2000 within the Red Wash Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
43-047-33497 RWU 13-19B		1802-FSL 0374-FWL 19 07S 23E
43-047-33498 RWU 13-20B		2143-FSL 0704-FWL 20 07S 23E
43-047-33499 RWU 33-19B		2606-FSL 1851-FEL 19 07S 23E
43-047-33500 RWU 33-20B		2210-FSL 2295-FEL 20 07S 23E

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Red Wash Unit  
Division of Oil Gas and Mining  
Agr. Sec. Chron  
Fluid Chron

MCoulthard:mc:3-6-0



**State of Utah**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor  
Kathleen Clarke  
Executive Director  
Lowell P. Braxton  
Division Director

1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah 84114-5801  
801-538-5340  
801-359-3940 (Fax)  
801-538-7223 (TDD)

March 7, 2000

Shenandoah Energy Inc  
1102 East 1750 South  
Vernal, Utah 84078

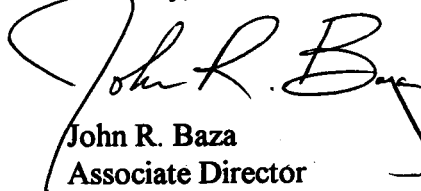
Re: RWU 33-19B, 2606' FSL, 1851' FEL, NW SE, Sec. 19, T. 7S, R. 23E, Uintah  
Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-33499.

Sincerely,



John R. Baza  
Associate Director

al

Enclosures

cc: Uintah County Assessor  
Bureau of Land Management, Vernal District Office

**Operator:** Shenandoah Energy Inc  
**Well Name & Number** RWU 33-19B  
**API Number:** 43-047-33499  
**Lease:** U-02030  
**Location:** NW SE **Sec.** 19 **T.** 7S. **R.** 23E.

### **Conditions of Approval**

1. **General**  
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.
2. **Notification Requirements**  
Notify the Division within 24 hours of spudding the well. Contact Carol Daniels at (801)538-5284.  
Notify the Division prior to commencing operations to plug and abandon the well. Contact Dan Jarvis at (801)538-5338 or Robert Krueger at (801)538-5274.
3. **Reporting Requirements**  
All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.
4. **State approval of this well does not supersede the required federal approval which must be obtained prior to drilling.**

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

**SUBMIT IN TRIPLICATE\***  
(Other instructions on  
reverse side)

**FORM APPROVED  
OMB NO. 1004-0136  
Expires February 28, 1995**

**APPLICATION FOR PERMIT TO DRILL OR DEEPEN**

**1. TYPE OF WORK**  
**DRILL** ☒ **DEEPEN** ☐

**2. TYPE OF WELL**  
 OIL WELL ☒ GAS WELL ☐ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

**2. NAME OF OPERATOR**  
 Shenandoah Energy Inc.

**3. ADDRESS AND TELEPHONE NO.** Phone: 435-781-4341 11002 East 17500 South  
 Fax: 435-781-4329 Vernal, Utah 84078

**4. LOCATION OF WELL** (Report location clearly and in accordance with any State requirements.)\*  
 At surface 2605.9' FSL 1850.5' FEL  
 At proposed prod. zone Same  
**14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\***  
 2.5 miles West of Redwash Utah

**15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.** 1353.3'  
 (Also to nearest dept. well line if any)

**16. NO. OF ACRES IN LEASE** 1875.8

**17. NO. OF ACRES ASSIGNED TO THIS WELL** 40

**18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR ON THIS LEASE, FT.** ±1000'

**19. PROPOSED DEPTH** 5950'

**20. ROTARY OR CABLE TOOL** Rotary

**21. ELEVATIONS** (Show whether DF, RT, GR, etc.) 5470.3'

**22. APPROX DATE WORK WILL START\*** A.S.A.P.

**3. LEASE DESIGNATION AND SERIAL NO.**  
 U - 02030

**6. IF INDIAN, ALLOTTEE OR TRIBE NAME**  
 N/A

**7. UNIT AGREEMENT NAME**  
 Red Wash

**8. FARM OR LEASE NAME, WELL NO.**  
 Federal

**9. API WELL NO.**  
 #33-19B

**10. FIELD AND POOL, OR WILDCAT**  
 Red Wash

**11. SEC., T., R., M., OR BLK AND SURVEY OR AREA**  
 Sec. 19, T7S, R23E, SLB&M

**12. COUNTY OR PARISH** Uintah **13. STATE** Utah

**23. PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	K55 8 5/8" NSW	24#	450'	130 sx - Class G
7 7/8"	K55 5 1/2" NSW	15.5#	5950'	630 sx - Class G

Shenandoah Energy Inc. proposes to drill a well to 5950' to test the Green River. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

See Onshore Order No. 1 attached.

Please be advised that Shenandoah Energy Inc. is considered to be the operator of the above mentioned well. Shenandoah Energy Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

Bond coverage for this well is provided by Bond No. 0969. The principal is Shenandoah Energy Inc. via surety as consent as provided for in 43 CFR 3104.2.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program if any.

24.

SIGNED John Busch John Busch TITLE Red Wash Oper. Rep. DATE 2-14-2000

(This space for Federal or State office use)

PERMIT NO. 43047-33499

APPROVAL DATE

**NOTICE OF APPROVAL**

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY Eileen R. [Signature] ACTING Assistant Field Manager  
 TITLE Mineral Resources DATE 3/21/00

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**CONDITIONS OF APPROVAL ATTACHED**

**CONDITIONS OF APPROVAL**  
**APPLICATION FOR PERMIT TO DRILL**

Company/Operator: Shenandoah Energy, Inc.

Well Name & Number: RWU 33-19B

API Number: 43-047-33499

Lease Number: U-02030

Location: NWSE Sec. 19 T. 7 S. R. 23 E

**NOTIFICATION REQUIREMENTS**

- |                                 |   |  |
|---------------------------------|---|--|
| Location Construction           | - | at least forty-eight (48) hours prior to construction of location and access roads.  |
| Location Completion             | - | prior to moving on the drilling rig.   |
| Spud Notice                     | - | at least twenty-four (24) hours prior to spudding the well.  |
| Casing String and Cementing     | - | at least twenty-four (24) hours prior to running casing and cementing all casing strings.  |
| BOP and Related Equipment Tests | - | at least twenty-four (24) hours prior to initiating pressure tests.  |
| Notice of First Production      | - | within five (5) business days after new well begins, or production resumes after well has been off production for more than ninety (90) days . |

For more specific details on notification requirements, please check the Conditions of Approval for Notice to Drill and Surface Use Program.



## CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Orders, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative by the operator to insure compliance.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

### A. DRILLING PROGRAM

#### 1. Estimated Depth at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered

Report **ALL** water shows and water-bearing sands to Tim Ingwell of this office **prior to setting the next casing string or requesting plugging orders**. Faxed copies of State of Utah form OGC-8-X are acceptable. If noticeable water flows are detected, submit samples to this office along with any water analyses conducted.

All usable water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

#### 2. Pressure Control Equipment

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc., for a **2M** system and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests.

Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a BLM representative upon request.

If an air compressor is on location and is being utilized to provide air for the drilling medium while drilling, the special drilling requirements in Onshore Oil and Gas Order No. 2, regarding air or gas drilling shall be adhered to. If a mist system is being utilized then the requirement for a deduster shall be waived.

#### Casing Program and Auxiliary Equipment

Surface casing shall have centralizers on the bottom three joints, with a minimum of one centralizer per joint.

If conductor pipe is set it will be cemented to surface. If drive pipe is used it will be pulled prior to cementing surface casing.

As a minimum, the usable water shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the top of the shallowest potential productive zone. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

#### 4. Mud Program and Circulating Medium

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

No chromate additives will be used in the mud system on Federal and Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

#### 5. Coring, Logging and Testing Program

Daily drilling and completion progress reports shall be submitted to this office on a weekly basis.

All Drill Stem tests (DST) shall be accomplished during daylight hours, unless specific approval to start during other hours is obtained from the AO. However, DSTs may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e., lighting which is adequate for visibility and vaporproof for safe operations). Packers can be released, but tripping should not begin before daylight unless prior approval is obtained from the AO.

A cement bond log (CBL) will be run from the production casing shoe to **TOP OF CEMENT** and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. One copy of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the AO.

6. Notifications of Operations

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

The Vernal District Office shall be notified, during regular work hours (7:45 a.m.-4:30 p.m., Monday through Friday except holidays), at least 24 hours prior to spudding the well.

Operator shall report production data to MMS pursuant to 30 CFR 216.5 using form MMS/3160.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the requirements of NTL-3A or its revision.

If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which gas is first measured through permanent metering facilities, whichever first occurs.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than five (5) days following the date on which the well is placed on production.

Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever occurs first, without the prior written approval of the Authorized Officer. Should gas be vented or flared without approval beyond the authorized test period, the operator may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted and the operator shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

A schematic facilities diagram as required by 43 CFR 3162.7-5 (b.9. d.), and shall be submitted to the appropriate District Office within sixty (60) days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-5 (b. 4).

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative, or the appropriate Surface Managing Agency.

7. Other Information

All loading lines will be placed inside the berm surrounding the tank battery.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the AO.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted following initial installation and at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal District Office. All meter measurement facilities will conform with Onshore Oil & Gas Order No. 4 for liquid hydrocarbons and Onshore Oil & Gas Order No. 5 for natural gas measurement.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).

APD approval is valid for a period of one (1) year from the signature date. An extension period may be granted, if requested, prior to the expiration of the original approval period.

In the event after-hours approval or notification is necessary, please contact one of the following individuals:

Wayne Bankert      (435) 789-4170  
Petroleum Engineer

Ed Forsman      (435) 789-7077  
Petroleum Engineer

Jerry Kenczka      (435) 781-1190  
Petroleum Engineer

BLM FAX Machine    (435) 781-4410

## EPA'S LIST OF NONEXEMPT EXPLORATION AND PRODUCTION WASTES

While the following wastes are nonexempt, they are not necessarily hazardous.

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Painting wastes
- Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums, transporting or containing nonexempt waste
- Refinery wastes
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Used equipment lubrication oils
- Waste compressor oil, filters, and blowdown
- Used hydraulic fluids
- Waste solvents
- Waste in transportation pipeline-related pits
- Caustic or acid cleaners
- Boiler cleaning wastes
- Boiler refractory bricks
- Incinerator ash
- Laboratory wastes
- Sanitary wastes
- Pesticide wastes
- Radioactive tracer wastes
- Drums, insulation and miscellaneous solids.

## SURFACE CONDITIONS OF APPROVAL

No construction is to occur until BLM monitors all raptor nests within ½ mile of the proposed project. By June 15 if current nesting is not present at any of the nests within ½ mile of the project construction could be authorized. After the nesting area surveys have been done, construction will be authorized for this project June 15 until February 1, 2001 if no occupied nests have been found.

Access roads and surface disturbing activities will conform to standards outlined in the Bureau of Land Management and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development, (1989).

The road shall be constructed/upgraded to meet the standards of the anticipated traffic flow and all-weather road requirements. Construction/upgrading shall include ditching, draining, and crowning (2 to 3%). Graveling or capping the roadbed will be required as necessary to provide a well constructed safe road. Prior to construction/upgrading, the proposed road surface or existing road shall be cleared of any snow cover and allowed to dry completely. Traveling off the 30 foot right-of-way will not be allowed. Should mud holes develop, they shall be filled in to prevent detours. Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossing nor shall the drainage be blocked by the roadbed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. When snow is removed from the road during the winter months, the snow should be pushed outside of the burrow ditches and the turn outs should be kept clear so that when the snow melts the water will be channeled away from the road.

Blading is only authorized for the construction of new access roads and maintenance of existing roads. If any additional blading is needed then Shenandoah is required to consult with BLM for authorization and receive permission before blading. No other blading along the proposed pipeline route will be authorized unless the BLM has been consulted and a written description of the proposed blading disturbance has been submitted for the project APD file.

Since there are rock exposures of the Duchesne River Formation present. A qualified Paleontologist is to be present during the construction of the well pad and access road. Shenandoah is to make the arrangements to have the construction monitored by a qualified Paleontologist.

The reserve pit will be lined with a liner of 12 mil thickness to conserve water and prevent seepage into the sandy soils in this area. A flare pit for drilling will be built near the reserve pit. The flare line shall be at least 100 feet in length. Both pits will be located as shown in the APD on the layout diagram.

Shenandoah Energy will control noxious weeds along the right-of-way for roads, pipelines, well sites or other applicable facilities. A list of noxious weeds may be obtained from the BLM, or the appropriate County Extension Office. On BLM administered land it is required that a Pesticide Use Proposal shall be submitted, and given approval, prior to the application of herbicides or other pesticides or possible hazardous chemicals.

Place topsoil materials at the North side of the location. Topsoil from the Reserve pit will be near the East side of the pad. Windrow the stockpiles where appropriate. Seed windrowed piles with the seed mixture listed below, immediately after windrowing, and work seed into the piles with caterpillar tractor and/ or suitable equipment.

Stockpile enough topsoil near the reserve pit so that when the reserve pit is reclaimed, it can be respread over the pit location. Spread the topsoil over the reserve pit with the seed mix listed below, and work seed into the ground with caterpillar tractor. If the reserve pit is in a cut area, then the pit should be filled in and recontoured to blend with the original contours prior to reseeding.

Fourwing Saltbush	Atriplex canescens	4 lbs/acre
Shadscale	Atriplex confertifolia	3 lbs/acre
Needle and Thread	Stipa comata	3 lbs/acre
Western Wheatgrass	Agropyron smithii	2 lbs/acre

All poundages are in pure live seed. This seed mixture should also be used for final abandonment.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir  
Use "APPLICATION FOR PERMIT--" for such proposals

***SUBMIT IN TRIPLICATE***

1. Type of Well	
<input checked="" type="checkbox"/> Oil Well	<input type="checkbox"/> Gas Well <input type="checkbox"/> Other
2. Name of Operator <b>CHEVRON U.S.A. PRODUCTION COMPANY</b>	
3. Address and Telephone No <b>11002 E. 17500 S. VERNAL, UT 84078-8526</b> (801) 781-4300	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  <b>2606' FSL, 1851' FEL, NW SE, SECTION 19, T7S, R23E SLBM</b>	

5. Lease Designation and Serial No. <b>U-02030</b>
6. If Indian, Allottee or Tribe Name <b>N/A</b>
7. If Unit or CA, Agreement Designation <b>RED WASH UNIT</b>
8. Well Name and No. <b>RWU 33-19B</b>
9. API Well No. <b>43-047-33499</b>
10. Field and Pool, or Exploratory Area <b>RED WASH - GREEN RIVER</b>
11. County or Parish, State <b>UINTAH, UTAH</b>

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other <u>FIRST PRODUCTION</u>	<input type="checkbox"/> Dispose Water

(Note) Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

**THIS WELL COMMENCED PRODUCTION JUNE 5, 2000.**

**RECEIVED**

**JUL 05 2000**

**DIVISION OF  
OIL, GAS AND MINING**

14. I hereby certify that the foregoing is true and correct:  
Signed D. C. BEAMAN *Doris Beaman* Title COMPUTER SYSTEMS OPERATOR Date 06/30/00

(This space for Federal or State office use)

Approved by: \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
Conditions of approval, if any \_\_\_\_\_

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**\*See instruction on Reverse Side**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir  
Use "APPLICATION FOR PERMIT--" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well	Oil	Gas
<input checked="" type="checkbox"/> Well	<input type="checkbox"/> Well	<input type="checkbox"/> Other
2. Name of Operator		
CHEVRON U.S.A. PRODUCTION COMPANY		
3. Address and Telephone No		
11002 E. 17500 S. VERNAL, UT 84078-8526 (801) 781-4300		
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)		
2606' FSL, 1851' FEL, NW SE, SECTION 19, T7S, R23E SLBM		

5. Lease Designation and Serial No.
U-02030
6. If Indian, Allottee or Tribe Name
N/A
7. If Unit or CA, Agreement Designation
RED WASH UNIT
8. Well Name and No.
RWU 33-19B
9. API Well No.
43-047-33499
10. Field and Pool, or Exploratory Area
RED WASH - GREEN RIVER
11. County or Parish, State
UINTAH, UTAH

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other SPUD	<input type="checkbox"/> Dispose Water
(Note) Report results of multiple completion on Well Completion or Recompletion Report and Log form.)		

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

THIS WELL WAS SPUD APRIL 28, 2000. DRILL 470' 12 1/4" HOLE. RUN 461' 8 5/8" K55 24# CASING.

RECEIVED

JUL 05 2000

DIVISION OF  
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct.  
Signed D. C. BEAMAN Title COMPUTER SYSTEMS OPERATOR Date 06/30/00

(This space for Federal or State office use)

Approved by: \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
Conditions of approval, if any \_\_\_\_\_

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\*See instruction on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See instructions on  
reverse side).

Form approved.  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL OIL WELL ☒ GAS WELL ☐ DRY ☐ Other \_\_\_\_\_

b. TYPE OF COMPLETION NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR ☐ Other \_\_\_\_\_

2. NAME OF OPERATOR  
Shenandoah Energy Inc.

3. ADDRESS OF OPERATOR  
11002 East 17500 South, Vernal, UT 84078 (435) 781-4300

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 2606' FSL, 1851' FEL  
At top rod. interval reported below Same  
At total depth Same

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JUL 14 2000

DIVISION OF  
OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NO.  
U-02030

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Red Wash Unit

8. FARM OR LEASE NAME

9. WELL NO  
RWU #33-19B

10. FIELD AND POOL, OR WILDCAT  
Red Wash

11. SEC., T., R., M., OR BLOCK AND SURVEY  
OR AREA  
NW¼SE¼ S19-T7S-R23E, SLBM

14. PERMIT NO. 43-047-33499		DATE ISSUED 03-21-2000		12. COUNTY OR PARISH Uintah	13. STATE Utah
15. DATE SPUDDED 04-28-2000	16. DATE T.D. REACHED 05-11-2000	17. DATE COMPL. (Ready to prod.) 04-19-2000	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 5586' KBE, 5576' GLE	19. ELEV. CASINGHEAD	
20. TOTAL DEPTH, MD & TVD 5800'	21. PLUG BACK T.D., MD & TVD 5775'	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY ROTARY TOOLS X	CABLE TOOLS	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)\*  
Green River Formation 5558' TO 5710' MD and TVD

25. WAS DIRECTIONAL SURVEY MADE

26. TYPE ELECTRIC AND OTHER LOGS RUN  
Array Induction, Compensated Neutron Density, Selective Formation Tester, Magnetic Resonance, CBL/VDL

27. WAS WELL CORED  
No

28. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8"	24	461'	12 1/4"	320 sxs Class G w/ 2% CaCl	N/a
5 1/2"	15.5	5800'	7 7/8"	310 sxs HiFill Lead, 360 sxs 50/50 POZMIX Tail cement	N/a

29. LINER RECORD				30. TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SIZE	DEPTH SET (MD)	PACKER SET (MD)
				2 7/8"	5771'	none

31. PERFORATION RECORD (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
5558'-5566'	All shots 4 SPF, 120° phasing	DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5576'-5578'			No stimulation
5582'-5584'			
5699'-5710'			

33. PRODUCTION

DATE FIRST PRODUCTION 06-05-2000		PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump) Pumping oil well			WELL STATUS (Producing or shut-in) producing	
DATE OF TEST 06-15-2000	HOURS TESTED 24	CHOKE SIZE n/a	PROD'N FOR TEST PERIOD 34	OIL--BBL. n/a	GAS--MCF. 0	WATER--BBL. 0 scf/bbl
FLOW. TUBING PRESS. n/a	CASING PRESSURE n/a	CALCULATED 24-HOUR RATE n/a	OIL--BBL.	GAS--MCF	WATER--BBL.	OIL GRAVITY-API (CORR.) 29

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)  
Sold

35. LIST OF ATTACHMENTS

TEST WITNESSED BY  
M.E. Alexander

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Stacy TITLE District Manager DATE July 12, 2000

(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Green River	5558'	5710'	Oil  No DSTs No Core	Green River Mahogany Bench	3080' 3950'	

ENTITY ACTION FORM - FORM 6

OPERATOR: **Shenandoah Energy, Inc.**  
ADDRESS: **11002 East 17500 South**  
**Vernal, Utah 84078-8526**

OPERATOR ACCT. No. \_\_\_\_\_

**(801)781-4300**

Action Code	Current Entity No.	New Entity No.	API Number	Well Name	QQ	SC	TP	RG	County	Spud Date	Effective Date
B	99999	5670	43-047-33499	Red Wash Unit 33-19B	NW SE	19	7S	23E	Uintah	4/28/00	7-17-00

WELL 1 COMMENTS: *000717 entity added.*

**New well drilled in the Red Wash Unit.**

WELL 2 COMMENTS:

WELL 3 COMMENTS:

WELL 4 COMMENTS:

WELL 5 COMMENTS:

**ACTION CODES** (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected

(3/89)

*Doris C. Berman*  
Signature

Office Manager. 07/05/00  
Title \_\_\_\_\_ Date \_\_\_\_\_

Phone No. **(801) 781-4306**

RECEIVED

JUL 07 2000

DIVISION OF  
OIL, GAS AND MINING

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No 1004-0135  
Expires March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir  
Use "APPLICATION FOR PERMIT--" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Gas  
☐ Well ☐ Well ☒ Other

2. Name of Operator

SHENANDOAH ENERGY INC

3. Address and Telephone No

11002 E. 17500 S. VERNAL, UT 84078-8526

(801) 781-4341

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SEE BELOW

5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

RED WASH UNIT

8. Well Name and No.

9. API Well No

43-047-33499

10. Field and Pool, or Exploratory Area

RED WASH - GREEN RIVER

11. County or Parish, State

UINTAH, UTAH

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☒ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☒ Other COMPOST  
☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note) Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

Shenandoah Energy Inc. requests approval to use compost from the Shenandoah Red Wash compost project to be placed 2"-4" thick on the new roads to the following locations:

RW #44-19B, RW #24-19B, RW #13-19B, RW #44-20B, RW #24-20B, RW #42-19B, RW #33-19B, and RW #33-20B - Sec. 19 & 20, T7S, R23E, SLB&M.

Accepted by the  
Utah Division of  
Oil, Gas and Mining

Date: 7-26-00  
By: [Signature]

Federal Approval of this  
Action is Necessary

COPY SENT TO OPERATOR  
Date: 7-27-00  
Initials: CJP

RECEIVED

JUL 25 2000

DIVISION OF  
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct.

Signed JOHN BUSCH [Signature]

Title OPERATIONS REPRESENTATIVE

Date 7/20/00

(This space for Federal or State office use)

Approved by: \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
Conditions of approval, if any \_\_\_\_\_

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*See instruction on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir  
Use "APPLICATION FOR PERMIT--" for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well  
Oil Gas  
☐ Well ☐ Well ☒ Other

2. Name of Operator  
**SHENANDOAH ENERGY INC.**

3. Address and Telephone No.  
**11002 E. 17500 S. VERNAL, UT 84078-8526 (801) 781-4300**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name  
N/A

7. If Unit or CA, Agreement Designation

8. Well Name and No.

9. API Well No.

10. Field and Pool, or Exploratory Area

11. County or Parish, State  
**UINTAH, UTAH**

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other <u>Confidential</u>	<input type="checkbox"/> Dispose Water

(Note) Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

**Shenandoah Energy Inc. would like to have the attached wells be kept confidential.**

**RECEIVED**

**OCT 11 2000**

**DIVISION OF  
OIL, GAS AND MINING**

14. I hereby certify that the foregoing is true and correct.

Signed **JOHN BUSCH** John Busch

Title **Operations Supervisor**

Date **10/9/00**

(This space for Federal or State office use)

Approved by: \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Conditions of approval, if any \_\_\_\_\_

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**\*See instruction on Reverse Side**

WELL NAME      WELL LOCATION      1/4 1/4 SEC. SECTION TOWNSHIP RANGE      API#

Red Wash	2220B**	SE NW	20	7S	23E	43-047-33491
Red Wash	4220B*	SE NE	20	7S	23E	43-047-33490
Red Wash	1320B*	NW SW	20	7S	23E	43-047-33498
Red Wash	3320B++	NW SE	20	7S	23E	43-047-33500
Red Wash	2221B	SE NW	21	7S	23E	43-047-33522
Red Wash	2419B	SE SW	19	7S	23E	43-047-33492
Red Wash	4419B	SE SE	19	7S	23E	43-047-33524
Wonsits Valley	6W-16-8-21	SE NW	16	8S	21E	43-047-33527
Gypsum Hills	10W-19-8-21	NW SE	19	8S	21E	43-047-33528
Wonsits Valley	16W-9-8-21	SE SE	9	8S	21E	43-047-33529
Wonsits Valley	6G-16-8-21	SE NW	16	8S	21E	43-047-33564
Gypsum Hills	10G-19-8-21	NW SE	19	8S	21E	43-047-33566
Wonsits Valley	16G-9-8-21	SE SE	9	8S	21E	43-047-33565
Red Wash	2420B	SE SW	20	7S	23E	43-047-33523
Red Wash	1319B	NW SW	19	7S	23E	43-047-33497
Red Wash	3319B	NW SE	19	7S	23E	43-047-33499
Red Wash	4420B	SE SE	20	7S	23E	43-047-33525
Red Wash	4219B	SE NE	19	7S	23E	43-047-33556
Red Wash	2219B	SE NW	19	7S	23E	43-047-33559
Red Wash	4224A	NE SE	24	7S	22E	43-047-33569
Red Wash	3424A	SW SE	24	7S	22E	43-047-33567
Red Wash	2324A	NE SW	24	7S	22E	43-047-33568
Red Wash	2125A	NE NW	25	7S	22E	43-047-33576
Red Wash	4125A	NE NE	25	7S	22E	43-047-33579
Red Wash	1119B	NW NW	19	7S	23E	43-047-33552
Red Wash	3119B	NW NE	19	7S	23E	43-047-33555
Red Wash	1120B	NW NW	20	7S	23E	43-047-33553
Red Wash	2418B	SE SW	18	7S	23E	43-047-33554
Red Wash	3413A	SW SE	13	7S	22E	43-047-33593
Red Wash	2124A	NE NW	24	7S	22E	43-047-33592
Red Wash	1224A	SW NW	24	7S	22E	43-047-33591
Red Wash	1125A	NW NW	25	7S	22E	43-047-33574
Red Wash	1325A	NW SW	25	7S	22E	43-047-33575
Red Wash	3125A	NW NE	25	7S	22E	43-047-33577
Red Wash	3325A	NW SE	25	7S	22E	43-047-33578
Red Wash	4225A	SE NE	25	7S	22E	43-047-33580
Red Wash	4418B	SE SE	18	7S	23E	43-047-33594
Red Wash	1129B	NW NW	29	7S	23E	43-047-33590
Wonsits Valley	9G-2-8-21	NE SE	2	8S	21E	43-047-33647
Wonsits Valley	9W-2-8-21	NE SE	2	8S	21E	43-047-33648
Wonsits Valley	16G-2-8-21	SE SE	2	8S	21E	43-047-33646
Wonsits Valley	16W-2-8-21	SE SE	2	8S	21E	43-047-33645
Wonsits Valley	15W-9-8-21	SW SE	9	8S	21E	43-047-33661
Wonsits Valley	15G-9-8-21	SW SE	9	8S	21E	43-047-33662
Wonsits Valley	2W-10-8-21	NW NE	10	8S	21E	43-047-33655
Wonsits Valley	2G-10-8-21	NW NE	10	8S	21E	43-047-33656
Wonsits Valley	12W-10-8-21	NW SW	10	8S	21E	43-047-33659

33568  
33567

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OCT 11 2000

DIVISION OF  
OIL, GAS AND MINING



Wonsits Valley	12G-10-8-21	NW SW	10	8S	21E	43-047-33660
Wonsits Valley	4W-11-8-21	NW NW	11	8S	21E	43-047-33657
Wonsits Valley	4G-11-8-21	NW NW	11	8S	21E	43-047-33658
Wonsits Valley	2W-16-8-21	NW NE	16	8S	21E	43-047-33246
Wonsits Valley	2G-16-8-21	NW NE	16	8S	21E	43-047-33247
Wonsits Valley	12W-16-8-21	NW SW	16	8S	21E	43-047-33649
Wonsit Valley	12G-16-8-21	NW SW	16	8S	21E	43-047-33650
Red Wash	33U-19B	NW SE	19	7S	23E	43-047-33654
Red Wash	14-27A	SWSW	27	7S	22E	43-047-33150
Wonsits Valley	WV 1W-18-8-22	NE NE	18	8S	22E	43-047-33294
Wonsits Valley	WV 11W-8-8-22	NE SW	8	8S	22E	43-047-33295
Wonsits Valley	WV 5W-13-8-21	SW NW	13	8S	21E	43-047-33221
Wonsits Valley	WV 9W-13-8-21	NE SE	13	8S	22E	43-047-33223
Wonsits Valley	WV 7W-13-8-21	SW NE	13	8S	22E	43-047-33270
Wonsits Valley	WV 3W-8-8-22	NE NW	8	8S	22E	43-047-33493
Wonsits Valley	WV 5W-7-8-22	SW NW	7	8S	22E	43-047-33494
Wonsits Valley	WV 1W-14-8-21	NE NE	14	8S	21E	43-047-33220
Wonsits Valley	WV 11W-7-8-22	NE SW	7	8S	22E	43-047-33495
Wonsits Valley	WV 13W-7-8-22	SW SW	7	8S	22E	43-047-33496
Wonsits Valley	WV 7W-7-8-22	SW NE	7	8S	22E	43-047-33503
Wonsits Valley	WV 9W-12-8-21	NE SE	12	8S	21E	43-047-33534
Wonsits Valley	WV 3W-7-8-22	NE NW	7	8S	22E	43-047-33502
Wonsits Valley	WV 1W-13-8-21	NE NE	13	8S	21E	43-047-33532
Wonsits Valley	WV 11W-12-8-21	NE SW	12	8S	21E	43-047-33535
Wonsits Valley	WV 1W-7-8-22	NE NE	7	8S	22E	43-047-33501
Wonsits Valley	WV 1W-12-8-21	NE NE	12	8S	21E	43-047-33531
Wonsits Valley	Fed 9W-8-8-22	NE SE	8	8S	22E	43-047-33515
Wonsits Valley	WV 13W-12-8-21	SW SW	12	8S	21E	43-047-33537
Wonsits Valley	WV 3W-18-8-22	NE NW	18	8S	22E	43-047-33533
Wonsits Valley	WV 11W-13-8-21	NE SW	13	8S	21E	43-047-33536
Wonsits Valley	Fed 15W-8-8-22	SW SE	8	8S	22E	43-047-33517
Gypsum Hills	GH 1W-32-8-21	NE NE	32	8S	21E	43-047-33570
Gypsum Hills	GH 7W-32-8-21	SW NE	32	8S	21E	43-047-33573
Wonsits Valley	WV 3W-24-8-21	NE NW	24	8S	21E	43-047-33605
Gypsum Hills	GH 5W-32-8-21	SW NW	32	8S	21E	43-047-33572
Gypsum Hills	GH 3W-32-8-21	NE NW	32	8S	21E	43-047-33571
Wonsits Valley	WV 13W-18-8-22	SW SW	18	8S	22E	43-047-33538
Wonsits Valley	WV 15W-13-8-21	SW SE	13	8S	21E	43-047-33608
Wonsits Valley	WV 3W-13-8-21	NE NW	13	8S	21E	43-047-33603
Wonsits Valley	WV 13W-13-8-21	SW SW	13	8S	21E	43-047-33606
Wonsits Valley	WV 1W-21-8-21	NE NE	21	8S	21E	43-047-33602
Wonsits Valley	WV 9W-14-8-21	NE SE	14	8S	21E	43-047-33269
Glen Bench	GB 5W-17-8-22	SW NW	17	8S	22E	43-047-33514
Wonsits Valley	WV 1W-24-8-21	NE NE	24	8S	21E	43-047-33613
Wonsits Valley	WV 3W-22-8-21	NE NW	22	8S	21E	43-047-33604
Glen Bench	GB 9W-18-8-22	NE SE	18	8S	22E	43-047-33516
Wonsits Valley	WV 13W-14-8-21	SW SW	14	8S	21E	43-047-33607
Glen Bench	GB 3W-17-8-22	NE NW	17	8S	22E	43-047-33513
Wonsits Valley	WV 11W-18-8-22	NE SW	18	8S	22E	43-047-33626

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OCT 11 2000

DIVISION OF  
OIL, GAS AND MINING

Glen Bench	GB 3W-22-8-22	NE NW	22	8S	22E	43-047-33652
Glen Bench	GB 12W-30-8-22	NW SW	30	8S	22E	43-047-33670
White River	WR 13W-3-8-22	SW SW	3	8S	22E	43-047-33651

**RECEIVED**

OCT 11 2000

DIVISION OF  
OIL, GAS AND MINING

CONFIDENTIAL

Form 3160-5  
(August 1999)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill or to re-enter an  
abandoned well. Use Form 3160-3 (APD) for such proposalsFORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

SUBMIT IN TRIPLICATE- Other Instructions on reverse side

## 1. Type of Well:

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator **SHENANDOAH ENERGY INC**  
**CONTACT: J.T. CONLEY DIVISION MANAGER**  
**EMAIL: jconley@shenandoahenergy.com**3a. Address **11002 EAST 17500 SOUTH**  
**VERNAL, UT 84078**3b. Phone No. (include area code)  
**TEL: 435.781.4300 EXT: 301**  
**FAX: 435.781.4329**

## 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

**Sec 19 T7S R23E NWSE 2606FSL 1851FEL**

## 5. Lease Serial No.

**U-02030**

## 6. If Indian, Allottee or Tribe Name

## 7. If Unit or CA Agreement, Name and No.

**8920007610**

## 8. Lease Name and Well No.

**RWU 33-19B**

## 9. API Well No.

**4304733499**

## 10. Field and Pool, or Exploratory

**RED WASH**

## 11. County or Parish, State

**UINTAH, UT**

## 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input checked="" type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give the subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with the BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of involved operations. If the operation results in multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

**Workover from 09/16/00 to 09/26/00.**

**MIRU, POOH with prod equip. Set RBP at 5620' and land deadstring at 5482'. Sand frac the Gx3/Gy2 zones with 29,000# sand in 12,800 gals at ATR = 5.5 BPM, ATP = 2200 psig. Swab load water back to cleanup well. Cleanout frac sand and POOH with tools. RIH with pro equip and place back on rod pump.**

RECEIVED

DEC 9 2000

DIVISION OF  
OIL, GAS AND MININGName (Printed/Typed) **JT CONLEY**Title **DISTRICT MANAGER**Signature **JT Conley**Date **12-22-00**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

**ELECTRONIC SUBMISSION #2219 VERIFIED BY THE BLM WELL INFORMATION SYSTEM FOR SHENANDOAH ENERGY INC SENT TO THE VERNAL FIELD OFFICE**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8  
999 18<sup>TH</sup> STREET - SUITE 300  
DENVER, CO 80202-2466  
<http://www.epa.gov/region08>

JAN 10 2002

Ref: 8P-W-GW

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Scott M. Webb  
Regulatory Coordinator  
**Shenandoah Energy Inc.**  
475 17th Street, Suite #1000  
Denver, CO 80202

**Accepted by the  
Utah Division of  
Oil, Gas and Mining  
FOR RECORD ONLY**

RE: UNDERGROUND INJECTION CONTROL (UIC)  
Final Permit Red Wash Unit  
**RWU #33-19B**  
EPA Permit No. UT2903-04611  
Uintah County, Utah

Dear Mr. Webb:

Enclosed is a **Final Underground Injection Control Permit** for the proposed enhanced oil recovery well, the Red Wash Unit (RWU) #33-19B, Red Wash Field, Uintah County, Utah. A Statement of Basis is also enclosed which discusses the development of the Permit.

The public comment period ended on December 20, 2001. There were no comments from either the general public or the land owners who may be affected by the proposed action. We also did not receive any comments from you concerning our actions.

Following conversion, but prior to injection, Shenandoah Energy Inc. (Shenandoah) must fulfill Permit condition Part II, Section C. 1., "Prior to Commencing Injection" and have submitted to the EPA for review and approval, the following:

- (1) All conversion is complete and the permittee has submitted a completed Well Rework Record (EPA Form 7520-12 in Appendix B; A current wellbore diagram will be included; and



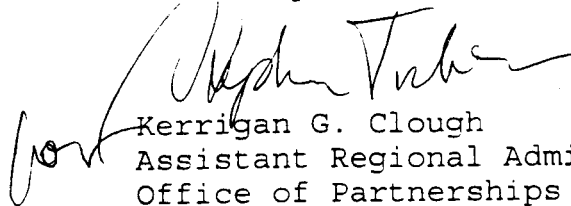
Printed on Recycled Paper

- (2) the pore pressure has been determined; and
- (3) the permittee has submitted for review and approval **Part I (Internal) of the mechanical integrity test (MIT)**; EPA form enclosed with current MIT Guidance No. 39.

Please be aware that Shenandoah does not have authorization to begin injection into the RWU #33-19B well until the items listed above have been approved by the EPA and Shenandoah has received **written authorization** to begin injection from the EPA. It is Shenandoah's responsibility to be familiar with, and to comply with, all conditions contained in this Permit.

If you have any questions on this action please contact Mr. Dan Jackson at 303.312.6155. Also direct all correspondence and/or reports to **ATTENTION: Dan Jackson at MAIL CODE 8P-W-GW.** Thank you for your continued cooperation.

Sincerely,



Kerrigan G. Clough  
Assistant Regional Administrator  
Office of Partnerships and  
Regulatory Assistance

Enclosures: Final Permit  
Statement of Basis  
MIT Guidance No. 39

cc: Mr. D. Floyd Wopsock, Chairman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Ms. Elaine Willie, Environmental Coordinator  
Ute Indian Tribe

Mr. Norman Cambridge  
BIA - Uintah & Ouray Agency

Mr. Jerry Kenczka  
BLM - Vernal District Office

Mr. Gilbert Hunt  
State of Utah Natural Resources  
Division of Oil, Gas, and Mining

**FINAL**

**STATEMENT OF BASIS**

SHENANDOAH ENERGY INC.

RED WASH UNIT (RWU) #33-19B  
RED WASH FIELD

EPA PERMIT NUMBER: UT2903-04611

CONTACT: D. Edwin Hogle (8P-W-GW)  
U. S. Environmental Protection Agency  
999 18th Street, Suite 300  
Denver, Colorado 80202-2466  
Telephone: 303.312.6137

**DESCRIPTION OF FACILITY AND BACKGROUND INFORMATION:**

On January 9, 2001, Shenandoah Energy Inc. (SEI) made application for the conversion of a producing oil well from the Lower Green River Formation to a Class II enhanced oil recovery (EOR) injection well and back into the same producing Lower Green River zones so that SEI may continue to economically produce oil from their Red Wash Unit Field. The primary water source for injection will be produced/recycled water from the Red Wash Waterflood and the White River #11-4 well (user Code #49, Serial #287) and the Water Supply Well #1 (user Code #49, Serial #2153). These two wells have been approved by the State of Utah as supply water wells for additional water floods as needed. The water at the inlet of the pump plant for the waterflood is tested on a regular basis. Based on the test dated 12/31/99 the injected water has a specific gravity of 1.005 gm/cc, pH of 9.0 and TDS of 5,689 mg/l.

The area covered by the application is in the Red Wash Unit Field which lies under federal jurisdiction for purposes of UIC program implementation for the following proposed well:

**Red Wash Unit #33-19B**  
NW/4 SE/4 Section 19, Township 7 South, Range 23 East  
Uintah County, Utah

The permittee has sent notices to all surface landowners and interested parties within one-quarter (1/4) mile of the proposed injection well.

The earliest sampling of produced water from the RWU #33-19B Green River Formation was **June, 2000**. Total Dissolved Solids (TDS) were measured at **2,160 mg/l**, pH 7.63 and specific gravity of 1.008. Subsequent samples were obtained (05/07/01) as the waterflood project progressed and resulted in a noticeable increase in TDS (**11,000 mg/l**) due to the variance in properties of the produced water. Water quality analysis from the Green River Formation in this area varies between 3,400 mg/l to 50,000 mg/l and the Green River Formation in this area was exempted as a USDW in 1982 as part of the delegation of Utah's Class II UIC program [see 40 CFR § 147.2251(c)(2), re: "Aquifer Exemption Process" dated June 16, 1982].

Shenandoah has submitted all required information and data necessary for permit issuance in accordance with 40 CFR Parts 144, 146 and 147, and a Final Permit has been prepared.

The Permit will be issued for the operating life of the well from the effective date of this permit; therefore, no reapplication will be necessary unless the Permit is terminated for reasonable cause (40 CFR 144.39, 144.40, and 144.41). However, the permit will be reviewed every five (5) years.

This Statement of Basis (SOB) gives the derivation of the site specific Permit conditions and reasons for them, on the basis of the direct implementation regulations promulgated for the Uintah-Ouray Indian Tribal lands in the State of Utah, under the Underground Injection Control (UIC) program provisions for the Safe Drinking Water Act (SDWA). The referenced sections and conditions correspond to the sections and conditions in Permit No. UT2903-04611. The general Permit conditions for which the content is mandatory and not subject to site specific differences (based on 40 CFR Parts 144, 146 and 147), are not included in the discussion.

## **PART II, Section A WELL CONVERSION REQUIREMENTS**

### **Casing and Cementing**

(Condition 1)

The well was drilled, cased and cemented during April, 2000, by Shenandoah and completed as an oil well. This well will continue to produce until the Permit is approved and conversion

to a Class II injection well is complete. Casing and cementing details were submitted with the Permit application and construction is as follows:

- (1) **Surface casing** (9-5/8 inch) is set in a 12-1/4 inch hole to a depth of 461 feet kelly bushing (KB). The casing is secured with 320 sacks (sxs) Class "C" cement which was circulated to the surface, isolating the casing from the wellbore.
- (2) **Production casing** (5-1/2 inch) is set in an 7-7/8 inch hole to a depth of 5800 feet. This casing is secured with 310 sxs Hi-Fill Lead and 360 sxs 50/50 Pozmix tail up to a depth of 3240 feet, Top of Cement (TOC), per Cement Bond Log (CBL). Plugged back total depth (PBDT) is 5775 feet.

**UPON RE-ENTRY OF THIS PRODUCING OIL WELL, THE CONVERSION TO AN ENHANCED OIL RECOVERY WELL WILL BE AS FOLLOWS:**

- (1) MIRUSU, unseat pump, POOH w/rods and pump.
- (2) RIH with bit and scraper and clean out to 5775' (PBDT). This will clean up scale and fill which may be in well.
- (3) **Determine formation fluid pore pressure, static bottom-hole pressure, prior to setting tubing and packer.**
- (4) TIH w/2-7/8" tubing and injection retrievable packer to approximately 5510'. Circulate corrosion inhibitor or packer fluid in the tubing-casing annulus and set packer no more than 100' above top perforations (5558').
- (5) With EPA inspector or other authorized personnel present, test well for **mechanical integrity (MIT)**, with pressure chart, if passed successfully, place well on injection status and wait upon written approval from EPA to start injection.

**NOTE: MIT TEST METHODS AND CRITERIA ARE TO FOLLOW CURRENT UIC GUIDANCE.**

The construction and conversion of this well complies with the UIC requirements and is incorporated into the Permit.



Report of water encountered during the drilling of the RWU #33-19B indicates there was no observed fresh water zones. USDWs in the Uinta Formation are protected by cement and confining zones above the injection zones (5558'-5710').

**Injection Formation:** The Green River Formation is of variable lithology consisting of alternate shales, and lenticular and discontinuous sediments of varied permeability, deposited in a primarily lacustrine environment. The **Green River Formation** beneath the **Red Wash**, Walker Hollow, White River, Gypsum Hills, and Wonsits Valley oil fields has been classified as an **exempted aquifer**. Water quality analyses from the Green River Formation in the Red Wash-Wonsits Valley area, collected for an aquifer study in 1982, by the State of Utah Natural Resources and Energy Water Rights Department, show that the **total dissolved solids (TDS) content varies** from 3,400 mg/l to 50,000 mg/l. The Green River Formation in the above oil fields was exempted as a USDW in 1982 as part of the delegation of Utah's Class II UIC program delegation [see 40 CFR §147.2251(c)(2), re: "Aquifer Exemption Process" dated June 16, 1982]. For this well, the top of the **Green River Formation is ±3078 feet measured depth (MD) below ground level**. The entire Green River Formation has been exempted from protection as a USDW.

**Uinta Formation:** The overlying formation is the **Uinta Formation** which extends from surface to ±3078' and in this area consists of variegated sequences of mudstone, shales, siltstones and sandstones. This section is characterized by few developed sand bodies. These sand bodies generally are discontinuous and are not subject to direct recharge (low yielding). Waters of less than 10,000 mg/l total dissolved solids (TDS) may be present in these sand lenses of the Uinta Formation in this area and may be considered USDWs. The well construction and plugging requirements of this Permit are adequate to protect any USDWs that may be present in the Uinta Formation. Additionally, it is not considered reasonable to expect injected waters to migrate the ±2478' upward through the Upper Green River to enter the Uinta Formation.

#### **Tubing and Packer Specifications**

(Condition 2)

The 2-7/8 inch injection tubing information submitted by the applicant is incorporated into the Permit and shall be binding on the permittee. The packer will be set at a depth of approximately 5510 feet KB, or no more than 100 feet above the top perforations (5558').

**Monitoring Devices**

(Condition 3)

For the purposes of taking tubing and tubing/long string casing annulus pressure measurements, the EPA is requiring that the permittee install ½ inch fittings or equivalent quick disconnect fittings, with cut-off valves at the well head on the tubing, and on the tubing/casing annulus (**for attachment of pressure gauges**). EPA is further requiring the permittee to install a sampling tap on the line to the injection well and a flow meter that will be used to measure cumulative volumes of injected fluid. The permittee shall be required to maintain these devices in good operating condition.

**Formation Testing**

(Condition 4)

The permittee is required to determine the **injection zone fluid pore pressure (static bottom-hole pressure)** prior to **setting injection packer** and commencing injection operations.

**PART II, Section B      CORRECTIVE ACTION**

The applicant submitted the required 1/4-mile Area of Review (AOR) information with the Permit application. The subject well, RWU #33-19B, was drilled and completed according to the State of Utah requirements as to preclude uphole contamination from either oil or Class II enhanced recovery injection fluid. The **producing oil well**, #125 (34-19B), the two (2) temporarily abandoned wells RWU 48 (32-19B) and RWU 136 (43-19B) are the only wells within the one-quarter mile AOR. There are no wells in the AOR operating over the fracture of the injection formation.

An EPA analysis of the RWU #33-19B confining zone (5432' to 5498') has identified at a minimum a continuous eighteen (18) foot interval of at least 80% bond index cement bond through or significantly proximate to this zone. Therefore, it has been determined that cement in this well provides an effective barrier to significant upward movement of fluids through vertical channels adjacent to the wellbore, **therefore, the permittee is not required to take any corrective action before the effective date of this Permit.**

**PART II, Section C      WELL OPERATION****Prior To Commencing Injection**

(Condition 1)

Injection for the RWU #33-19B will not commence until the permittee has fulfilled all applicable conditions of the Permit

and has received written authorization from the Director as to the following:

- (1) The permittee has determined the **injection zone fluid pore pressure**; and
- (2) a successfully passed **mechanical integrity pressure test (MIT), Part I (Internal)** has been performed and witnessed according to the current guidelines discussed in the permit; and
- (3) submitted a **Well Rework Record (EPA Form 7520-12)** with **current schematic** following conversion; and
- (4) **a separate written authorization** to inject will be given subsequent to the EPA review and approval of (1), (2), and (3) above.

#### **Mechanical Integrity**

(Condition 2)

A tubing/casing annulus pressure test must be conducted, at least once every five (5) years (active injection wells) to demonstrate continued tubing, packer, and casing integrity by using an EPA approved method.

#### **Injection Interval**

(Condition 3)

Injection will be limited to the gross Green River Formation, being 5498' to 5800' (TD) in this well. The permittee may find it necessary to perforate additional intervals within the above gross interval. These additional perforations may be added later and reported on EPA Form 7520-12.

The **confining zone** above the Green River Formation injection interval consists of 66' (5432' - 5498') of dolomitic shales with interbedded tight mudstones and carbonates with an occasional thin siltstone and tight sandstone stringers which act as an isolation barrier for the accumulation of oil and for the waterflood. An additional 2354' of intervening strata lies between the top of the confining zone at 5432' and the top of the Green River Formation at 3078'. The intervening strata consists of tightly interbedded shales, carbonate mudstones, siltstones and sandy limestones. Analysis of the Cement Bond Log/Gamma Ray (CBL/GR) has determined that the annulus cement in the RWU #33-19B well provides an effective barrier to significant upward movement of fluids through vertical channels adjacent to the wellbore.

**Injection Pressure Limitation**

(Condition 4)

**Maximum injection pressure (MIP);** the estimated injection pressure gradient is based on January 1998 step-rate (SRT) data from several Red Wash Unit wells. The Technical Director of the EPA Enforcement Program, approved (April 6, 1998) the use of a **0.81 psi/ft. fracture gradient in the calculation of maximum surface injection.** The original owner/operator of the Permit, Chevron U.S.A. Production Company, requested a Minor Modification, **increasing the maximum injection pressure for the RWU #283 (43-18B) and any future permitted wells within the Red Wash Unit.** Using this value, a theoretical modified maximum allowable surface injection pressure (Pm), for this well, has been performed and approved by the EPA as follows:

Pm = maximum pressure at the wellhead  
 1.005 = specific gravity of the injected fluid  
 0.81 = face fracture gradient, psig  
 5558' = depth to top perforations  
 0.433 = density of injectate

$$Pm = [0.81 - 0.433 (1.005)] 5558 = 2085 \text{ psig}$$

Until such time as the permittee demonstrates, through a step-rate injectivity test (SRT), that the fracture gradient is other than 0.81 psig/ft, the RWU #33-19B shall be operated at a surface injection pressure **no greater than 2085 psig.** Permit provisions have been made that allows the Director to **increase or decrease** the injection pressure based upon the test results and/or other parameters reflecting actual injection operations.

**Injection Volume Limitation**

(Condition 5)

There is no limitation on the number of barrels of water per day (BWPD) that may be injected into the RWU #33-19B, provided that in no case shall injection pressure exceed that limit shown in Part II, Section C. 4., of this Permit.

**Injection Fluid Limitation.**

(Condition 6)

Injection fluids are limited to those which are identified in 40 CFR § 144.6. (b) (2) as fluids used for enhanced recovery of oil and/or natural gas. The permittee shall provide a listing of the source of injected fluids on an annual basis as required by the Permit. **Injection of any hazardous waste as identified by EPA under 40 CFR § 261.3 is prohibited.**

**PART II, Section D     MONITORING, RECORDKEEPING AND  
REPORTING OF RESULTS**

**Injection Well Monitoring Program**

(Condition 1)

The permittee is required to monitor water quality of the injected fluids at annual intervals for total dissolved solids, pH, specific conductivity, and specific gravity. Any time there is a change in the source of injection fluid, a new water quality analysis is required.

To assure that no problem goes undetected, the EPA requires that the permittee monitor this location on a weekly basis. Any observations of surface leakage will require that the operator suspend injection operations in the RWU #33-19B until the noncompliance has been corrected, and approved in writing by the Director.

All pertinent details of the weekly inspections (flow rate, injection pressure, annulus pressure, and cumulative volume) must be recorded on a monthly basis.

The permittee shall maintain copies (or originals) of all pertinent records at the office of:

**Shenandoah Energy Inc.**  
475 17th Street, Suite 1000  
Denver, Colorado.

**PART II, Section E     PLUGGING AND ABANDONMENT**

**Plugging and Abandonment Plan**

(Condition 1)

The plugging and abandonment plan submitted by the applicant, consists of five (5) plugs and is incorporated into the permit under **Appendix C of the Permit**. This plan has been reviewed and approved by the EPA. It is consistent with UIC requirements:

**NOTE:    CEMENT PLUGS ARE TO BE SEPARATED BY  
BENTONITE MUD OR A 9.6 PPG PLUGGING GEL**

**PART II, Section F FINANCIAL RESPONSIBILITY****Demonstration of Financial Responsibility**

(Condition 1)

Shenandoah has chosen to demonstrate financial responsibility through a Surety Performance Bond Rider in the amount of \$1,980,000, \$18,000 per well to cover the cost of plugging and abandoning of this well and 110 other wells. Shenandoah has also submitted an accompanying Standby Trust Agreement that has been reviewed and approved by the EPA.



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION 8**  
**999 18<sup>TH</sup> STREET - SUITE 300**  
**DENVER, CO 80202-2466**  
**<http://www.epa.gov/region08>**

**UNDERGROUND INJECTION CONTROL PROGRAM**

**FINAL PERMIT**

**Class II Enhanced Oil Recovery Well**

**EPA Permit No. UT2903-04611**

**Well Name: Red Wash Unit #33-19B**

**Field Name: Red Wash**

**County & State: Uintah, Utah**

**issued to:**

**Shenandoah Energy Inc.**  
**475 17th Street, Suite #1000**  
**Denver, CO 80202**

**Date Prepared: January 2002**



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## **PART I. AUTHORIZATION TO CONVERT AND OPERATE**

Pursuant to the Underground Injection Control Regulations of the U. S. Environmental Protection Agency codified at Title 40 of the Code of Federal Regulations, Parts 124, 144, 146, and 147,

**Shenandoah Energy Inc.**  
475 17th Street, Suite #1000  
Denver, CO 80202

is hereby authorized to convert and operate an active Lower Green River Formation oil well to a Class II enhanced oil recovery injection well, injecting into the same producing zones and well commonly known as:

**Red Wash Unit (RWU) #33-19B**  
NW/4 SE/4 Section 19, Township 7 South, Range 23 East  
Uintah County, Utah.

Injection shall be for the purpose of enhanced oil recovery so that Shenandoah Energy Inc. (SEI) may continue to economically produce oil from their Red Wash Field in accordance with conditions set forth herein. Injection between the outermost casing protecting underground sources of drinking water (USDWs) and the wellbore is prohibited. If the well is not converted within one (1) year from the effective date of this Permit, the Permit shall expire as provided by Part II, Section A. 6.

Injection activities shall not commence until the operator has fulfilled all applicable conditions of this Permit and has received written authorization to inject from the Director. "Prior to Commencing Injection" requirements are set forth in Part II, Section C. 1., of this Permit.

All conditions set forth herein refer to Title 40 Parts 124, 144, 146, and 147 of the Code of Federal Regulations (40 CFR) and are regulations that are in effect on the date that this Permit becomes effective.

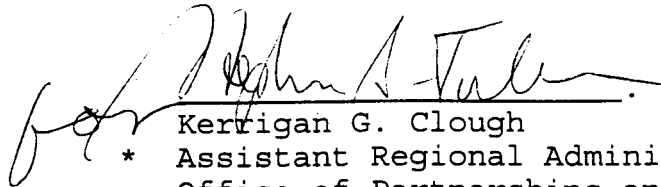
This Permit consists of a total of 33 pages and includes all items listed in the Table of Contents. Further, it is based upon representations made by the permittee and on other information contained in the administrative record. Any information submitted by the permittee found to be incorrect may be cause for

modification or termination of the Permit and/or may subject the permittee to formal enforcement action. It is the responsibility of the permittee to read, understand, and carryout all provisions of this Permit.

This Permit and the authorization to operate are issued for the operating life of the well, unless terminated (Part III, Section B), or except upon automatic expiration due to prolonged postponement of conversion (Part II, Section A. 6.). The Permit will be reviewed by EPA at least every five (5) years to determine whether action under 40 CFR § 144.36 (a) is warranted. The Permit will expire upon delegation of primary enforcement responsibility for the UIC Program to the State of Utah, Division of Oil, Gas, and Mining, or the Uintah-Ouray Indian Tribal Government, unless either the State or the Indian Tribal Government has adequate authority, and choose, to adopt and enforce this Permit as a State Permit or Tribal Government Permit.

Issued JAN 10 2002.

This Permit shall become effective JAN 10 2002.



\* Kerrigan G. Clough  
Assistant Regional Administrator  
Office of Partnerships and  
Regulatory Assistance

\* NOTE: The person holding this title is referred to as the "Director" throughout this Permit.

## PART II. SPECIFIC PERMIT CONDITIONS

### A. WELL CONVERSION REQUIREMENTS

1. **Casing and Cementing.** The conversion details submitted with the application are hereby incorporated into this permit as **Appendix A**, and shall be binding on the permittee. Cement bonds between the wellbore and casing are as follows: (1): 1st stage cement extends from the base of the 5-1/2 inch production casing (5800') up to an estimated top of 3240 feet kelly bushing (KB) as calculated by a Cement Bond Log (CBL); and (2): cement extends from the base of the 9-5/8 inch surface casing, set at 461 feet, up to the surface.
2. **Tubing and Packer Specifications.** A tubing of two and seven-eighths (2-7/8) inches diameter shall be utilized with a packer placed at a depth of approximately 5510 feet kelly bushing (KB). The permittee is required to set the packer at a distance of no more than 100 feet above the top perforations (5558'). Injection between the outer-most casing protecting underground sources of drinking water (USDWs) and the well bore is prohibited.
3. **Monitoring Devices.** The operator shall provide and maintain in good operating condition:
  - (a) a tap on the suction line, for the purpose of obtaining representative samples of the injection fluids;
  - (b) two (2), one-half (1/2) inch Female Iron Pipe (FIP) fittings, isolated by plug or globe valves, and located: 1) at the wellhead on the tubing; and 2) on the tubing/casing annulus (for attachment of pressure gauges). The gauges shall be designed to operate at a certified accuracy of at least ninety-five (95) percent, throughout the range of anticipated injection pressures; and
  - (c) a flow meter that will be used to measure cumulative volumes of injected fluid.
4. **Proposed Changes and Workovers.** The operator shall give at least five (5) to ten (10) days notice to the Director, of any planned physical alterations or additions to the permitted well(s). Major alterations

or workovers of the permitted well shall meet all conditions as set forth in this permit. A major alteration/workover shall be considered any work performed, which affects casing, packer(s), or tubing.

Demonstration of mechanical integrity shall be performed within thirty (30) days of completion of workovers/alterations and prior to injection activities, in accordance with Part II, Section C. 2.

The permittee shall provide all records of well workovers, logging, or other test data to EPA within sixty (60) days of completion of the activity.

**Appendix B** contains samples of the appropriate reporting forms.

5. **Formation Testing.** The permittee is required to determine the **injection zone fluid pore pressure (static bottom-hole pressure)**, prior to setting injection tubing and packer.
6. **Postponement of Conversion.** If the well is not converted to injection status within one (1) year from the effective date of this Permit, the authorization to convert and operate will automatically expire, unless the permittee requests and is granted an extension. The request shall be made to the Director in writing, and shall state the reasons for the delay in conversion/construction, and confirm the protection of all USDWs. The extension under this section may not exceed one (1) year. Once authorization to convert and operate expires under this part, the full permitting process, including opportunity for public comment, must be repeated before authorization to construct/convert and operate will be reissued. Financial responsibility shall be maintained during the period of inactivity in accordance with Part II, Section F.

#### **B. CORRECTIVE ACTION**

The applicant submitted the required 1/4-mile Area of Review (AOR) information with the Permit application. Within the AOR are two (2) Temporarily Abandoned Green River Formation oil wells; (1) the subject well, drilled and completed as a producing oil well according to the State of Utah requirements, and the RWU 125 (34-19B) producing oil well. These wells were constructed in such a manner as to preclude any migration of

injected fluids up hole. If any leaks are detected, the well(s) will be shut-in immediately and corrective action will be taken to restore integrity to the wellbore. Therefore, the permittee is not required to take any corrective action prior to the issuance of this Permit.

### C. WELL OPERATION

1. Prior to Commencing Injection. Injection operations may not commence until the permittee has complied with the following:
  - (a) Conversion is complete and the permittee has submitted a Well Rework Record (Form 7520-12 in Appendix B); A current wellbore diagram will be included; and
  - (b) the permittee has determined the injection zone fluid pore pressure (static bottom-hole pressure); and
  - (c) a successfully passed mechanical integrity pressure test (MIT), Part I (Internal) shall be performed with pressure chart, according to the current UIC Guidance for Conducting a Pressure Test to Determine if a Well Has Leaks in the Tubing, Casing or Packer. This guidance will be made available to the permittee when the final permit is issued.
2. Mechanical Integrity Demonstration.
  - (a) Notification. The Permittee shall notify the Director at least two (2) weeks prior to any required integrity test. The Director may allow a shorter notification period if it would be sufficient to enable EPA to witness the mechanical integrity test. Notification may be in the form of a yearly or quarterly schedule of planned mechanical integrity tests (MIT), or it may be on an individual basis.
  - (b) Test Methods and Criteria. Test methods and criteria are to follow current UIC Guidance for Conducting a Pressure Test to determine if a Well has leaks in the Tubing, Casing or Packer. To assure that the test pressure will detect

significant leaks and that the casing is subjected to pressure similar to that which would be applied if tubing or packer fails, the tubing/casing annulus should be tested at a pressure equal to the maximum allowed injection pressure or 1000 psig whichever is less. The annular test pressure must, however, have a difference of at least 200 psig either greater or less than the injection tubing pressure. Wells which inject at pressures of less than 300 psig must test at a minimum pressure of 300 psig, and the pressure difference between the annulus and the injection tubing must be at least 200 psig.

- (c) Routine Demonstrations of Mechanical Integrity. The Permittee must demonstrate mechanical integrity by arranging and conducting a routine tubing/casing annulus pressure test at least one every five (5) years during the life of the facility and **after workovers (see Part II. A. 4.)**. Results of the test shall be submitted (on EPA form found in **Appendix B**) to the Director as soon as possible but no later than sixty (60) days after the test is complete.
- (d) Loss of Mechanical Integrity. The operator is required to establish and maintain mechanical integrity [40 CFR § 144.51(q)]. If the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity as defined by 40 CFR § 146.8 becomes evident during operation, the permittee shall notify the Director in accordance with Part III, Section E. 10. (c) of this permit. Furthermore, injection activities shall be terminated immediately; and operation shall not be resumed until the permittee has taken necessary actions to restore integrity to the well and the Director gives approval to recommence injection.

- 3. Injection Interval. As identified in **Appendix A**, injection shall be limited to the gross Green River Formation, being 5558' to 5800' (TD) in this well. Additional perforations within the gross interval may be added later and reported on EPA Form 7520-12.

The **confining zone** above the Green River Formation injection interval consists of 66' (5432'- 5498') of shale, calcareous in part with occasional thin



siltstone and tight sandstone stringers which acts as an isolation barrier for the accumulation of oil and for the waterflood. An additional 2354' of intervening strata lies between the top of the confining zone at 5432' and the top of the Green River Formation at 3078'.

4. **Injection Pressure Limitation.**

- (a) Injection pressure, measured at the surface, shall not exceed an amount that the Director determines is appropriate to ensure that injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to USDWs.
- (b) The exact pressure limit may be **increased or decreased** by the Director in order to ensure that the requirements in paragraph (a) are fulfilled. In order to determine an exact pressure limit, the permittee may conduct a step rate injection test or other authorized well test(s) that will serve to determine the fracture pressure of the injection zone. Test procedures shall be pre-approved in writing by the Director. The Director will specify in writing, to the permittee, any increase or decrease to the injection pressure based upon the test results and/or other parameters reflecting actual injection operations. Until such time that this demonstration and approval is made, **the injection pressure, measured at the surface shall not exceed 2085 psig (maximum injection pressure).**

5. **Injection Volume Limitation.** There is no limitation on the number of barrels of water per day (BWPD) that shall be injected into this well, provided further that in no case shall injection pressure exceed that limit shown in Part II, Section C. 4. (b) of this Permit.

6. **Injection Fluid Limitation.** The permittee shall not inject any hazardous substances, as defined by 40 CFR part 261, at any time during the operation of the facility; and further, no substances other than those produced brines from oil and/or gas production and source water for water flooding in the Red Wash field.

7. **Annular Fluid.** The annulus between the tubing and the casing shall be filled with fresh water treated with a corrosion inhibitor to prevent corrosion. A diesel

freeze blanket may be circulated from surface to below frost level at completion to prevent freezing and possible equipment failure during winter months, or other fluid as approved, in writing, by the Director.

**D. MONITORING, RECORDKEEPING, AND REPORTING OF RESULTS**

1. **Injection Well Monitoring Program.** Samples and measurements shall be representative of the monitored activity. The permittee shall utilize the applicable analytical methods described in Table 1 of 40 CFR § 136.3, or in Appendix III of 40 CFR Part 261, or in certain circumstances, by other methods that have been approved by the EPA Administrator. Monitoring shall consist of:
  - (a) Analysis of the injected fluids, performed:
    - (i) **Annually** for Total Dissolved Solids, pH, Specific Conductivity, and Specific Gravity, from the common facility; however, if injection is maintained from more than one well from each common facility, then only one annual analysis is required for that facility.
    - (ii) Whenever there is a change in the source of injection fluids. A comprehensive water analysis shall be submitted to the Director within thirty (30) days of any change in injection fluids.
  - (b) **In addition to the weekly well site inspection** for surface leaks; observations of flow rate, injection pressure, annulus pressure, and cumulative volume shall be conducted monthly. All observations shall be observed and/or measured at approximately the same time. Observations of each shall be **recorded monthly**.
2. **Monitoring Information.** Records of any monitoring activity required under this permit shall include:
  - (a) The date, exact place, the time of sampling or field measurements;

- (b) The name of the individual(s) who performed the sampling or measurements;
- (c) The exact sampling method(s) used to take samples;
- (d) The date(s) laboratory analyses were performed;
- (e) The name of the individual(s) who performed the analyses;
- (f) The analytical techniques or methods used by laboratory personnel; and
- (g) The results of such analyses.

3. **Recordkeeping.**

- (a) The permittee shall retain records concerning:
  - (i) the nature and composition of all injected fluids until three (3) years after the completion of plugging and abandonment which has been carried out in accordance with the Plugging and Abandonment Plan shown in **Appendix C**, and is consistent with 40 CFR § 146.10.
  - (ii) all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit for a period of at least five (5) years from the date of the sample, measurement or report throughout the operating life of the well.
- (b) The permittee shall continue to retain such records after the retention period specified in paragraphs (a) (i) and (a) (ii) unless he delivers the records to the Director or obtains written approval from the Director to discard the records.
- (c) The permittee shall maintain copies (or originals) of all pertinent records at the office of:

**Shenandoah Energy Inc.**  
**475 17th Street, Suite 1000**  
**Denver, Colorado.**

4. **Reporting of Results.** The permittee shall submit an **Annual Report** to the Director summarizing the results of the monitoring required by Part II, Section D. 1. (a) and (b) of this permit. Copies of all monthly records on injected fluids, and any major changes in characteristics or sources of injected fluid shall be included in the Annual Report.

The first Annual Report shall cover the period from the effective date of the Permit through December 31, of that year. Subsequently, the Annual Report shall cover the period from January 1 through December 31, and shall be submitted by **February 15** of the following year. **Appendix B** contains Form 7520-11 which may be copied and used to submit the annual summary of monitoring.

## **E. PLUGGING AND ABANDONMENT**

1. **Notice of Plugging and Abandonment.** The permittee shall notify the Director forty-five (45) days before conversion, or abandonment of the well.
2. **Plugging and Abandonment Plan.** The permittee shall plug and abandon the well as provided in the Plugging and Abandonment Plan, **Appendix C**. This plan incorporates information supplied by the permittee and may contain a clarification by the EPA. The EPA reserves the right to change the manner in which the well will be plugged if the well is modified during its permitted life or if the well is not made consistent with EPA requirements for construction and mechanical integrity. The Director may require the permittee to update the estimated plugging cost periodically. Such estimates, two (2), shall be based on an independent service company's cost for current EPA approved P&A operations, not an "in-house" cost estimate.
3. **Cessation of Injection Activities.** After a cessation of operations of two (2) years [40 CFR § 144.52 (a) (6)], the permittee shall plug and abandon the well in accordance with the Plugging and Abandonment Plan, unless the permittee:
  - (a) has provided notice to the Director; and
  - (b) has demonstrated that the well will be used in the future; and

- (c) has described actions or procedures, satisfactory to the Director, that will be taken to ensure that the well will not endanger underground sources of drinking water during the period of temporary abandonment.
4. **Plugging and Abandonment Report.** Within sixty (60) days after plugging the well, the permittee shall submit a report on Form 7520-13 to the Director. The report shall be certified as accurate by the person who performed the plugging operation and the report shall consist of either: (1) a statement that the well was plugged in accordance with the plan; or (2) where actual plugging differed from the plan, a statement that specifies the different procedures followed.

## **F. FINANCIAL RESPONSIBILITY**

1. **Demonstration of Financial Responsibility.** The permittee has chosen to demonstrate financial responsibility through a Surety Performance Bond in the amount of \$1,980,000, \$18,000 per well to cover the cost of plugging and abandoning 110 wells as listed under Schedule "A". Shenandoah has also submitted an accompanying Standby Trust Agreement that has been reviewed and approved by the EPA.
- (a) The **permittee shall submit financial statements and other information annually, or as required by EPA,** in order to demonstrate that its financial position remains sound, and that it continues to have adequate financial resources, as determined by the EPA, to close, plug, and abandon the injection well(s) in accordance with the approved plugging and abandonment plan.
- (b) If financial statements or other information indicate that the permittee no longer has financial resources, according to EPA criteria, to assure that the injection wells will be properly plugged and abandoned, then the permittee must make an alternate showing of financial responsibility. This showing must be acceptable to the Director and must be submitted within sixty (60) days after having been notified by EPA of the necessity for making an alternate showing of financial responsibility.

- (c) The permittee may upon his own initiative and upon written request to EPA, change the method of demonstrating financial responsibility from financial statement coverage to a financial instrument such as a bond, letter of credit, or trust fund. Any such change must be approved by the Director.

2. **Insolvency of Financial Institution.** In the event that an alternate demonstration of financial responsibility has been approved under (b) or (c), above, the permittee must submit an alternate demonstration of financial responsibility acceptable to the Director within sixty (60) days after either of the following events occur:

- (a) The institution issuing the trust or financial instrument files for bankruptcy; or
- (b) The authority of the trustee institution to act as trustee, or the authority of the institution issuing the financial instrument, is suspended or revoked.

### **PART III. GENERAL PERMIT CONDITIONS**

**A. EFFECT OF PERMIT.** The permittee is allowed to engage in underground injection in accordance with the conditions of this permit. The permittee, as authorized by this permit, shall not construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR, Part 142 or otherwise adversely affect the health of persons. Any underground injection activity not authorized in this permit or otherwise authorized by permit or rule is prohibited. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the terms of this permit does not constitute a defense to any enforcement action brought under the provisions of Section 1431 of the Safe Drinking Water Act (SDWA) or any other law governing protection of public health or the environment for any imminent and substantial endangerment to human health, or the environment, nor does it serve as a shield to the permittee's independent obligation to comply with all UIC regulations.

## B. PERMIT ACTIONS

1. **Modification, Reissuance, or Termination.** The Director may, for cause or upon a request from the permittee, modify, revoke and reissue, or terminate this permit in accordance with 40 CFR §§ 124.5, 144.12, 144.39, and 144.40. Also, the permit is subject to minor modifications for cause as specified in 40 CFR § 144.41. The filing of a request for a permit modification, revocation and reissuance, or termination or the notification of planned changes or anticipated noncompliance on the part of the permittee does not stay the applicability or enforceability of any permit condition.
2. **Conversions.** The Director may, for cause or upon a request from the permittee allow conversion of the well from a Class II injection well to a non-Class II well. Requests to convert the injection well from its Class II status to a non-Class II well, such as, a production well, must be made in writing to the Director. Conversion may not proceed until a permit modification indicating the conditions of the proposed conversion is received by the permittee. Conditions of the modification may include such items as, but is not limited to, approval of the proposed well rework, follow up demonstration of mechanical integrity, and well specific monitoring and reporting following the conversion.
3. **Transfers.** This permit is not transferrable to any person except after notice is provided to the Director and the requirements of 40 CFR § 144.38 are complied with. The Director may require modification, or revocation and reissuance, of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the SDWA.
4. **Operator Change of Address.** Upon the operator's change of address, notice must be given to the following EPA office:

U. S. Environmental Protection Agency  
Region VIII, UIC Section (8P-W-GW)  
999 18th Street, Suite 300  
Denver, CO 80202-2466

### C. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

### D. CONFIDENTIALITY

In accordance with 40 CFR Part 2 and 40 CFR § 144.5, any information submitted to EPA pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

- The name and address of the permittee; and
- Information which deals with the existence, absence, or level of contaminants in drinking water.

### E. GENERAL DUTIES AND REQUIREMENTS

1. Duty to Comply. The permittee shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance constitutes a violation of the SDWA and is grounds for enforcement action, permit termination, revocation and reissuance, or modification. Such noncompliance may also be grounds for enforcement action under the Resource Conservation and Recovery Act (RCRA).
2. Penalties for Violations of Permit Conditions. Any person who violates a permit requirement is subject to civil penalties, fines, and other enforcement action under the SDWA and may be subject to such actions pursuant to the RCRA. Any person who willfully violates permit conditions may be subject to criminal prosecution.



3. **Need to Halt or Reduce Activity not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.
5. **Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities or similar systems, only when necessary, to achieve compliance with the conditions of this permit.
6. **Duty to Provide Information.** The permittee shall furnish the Director, within a time specified, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
7. **Inspection and Entry.** The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:
  - (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
  - (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

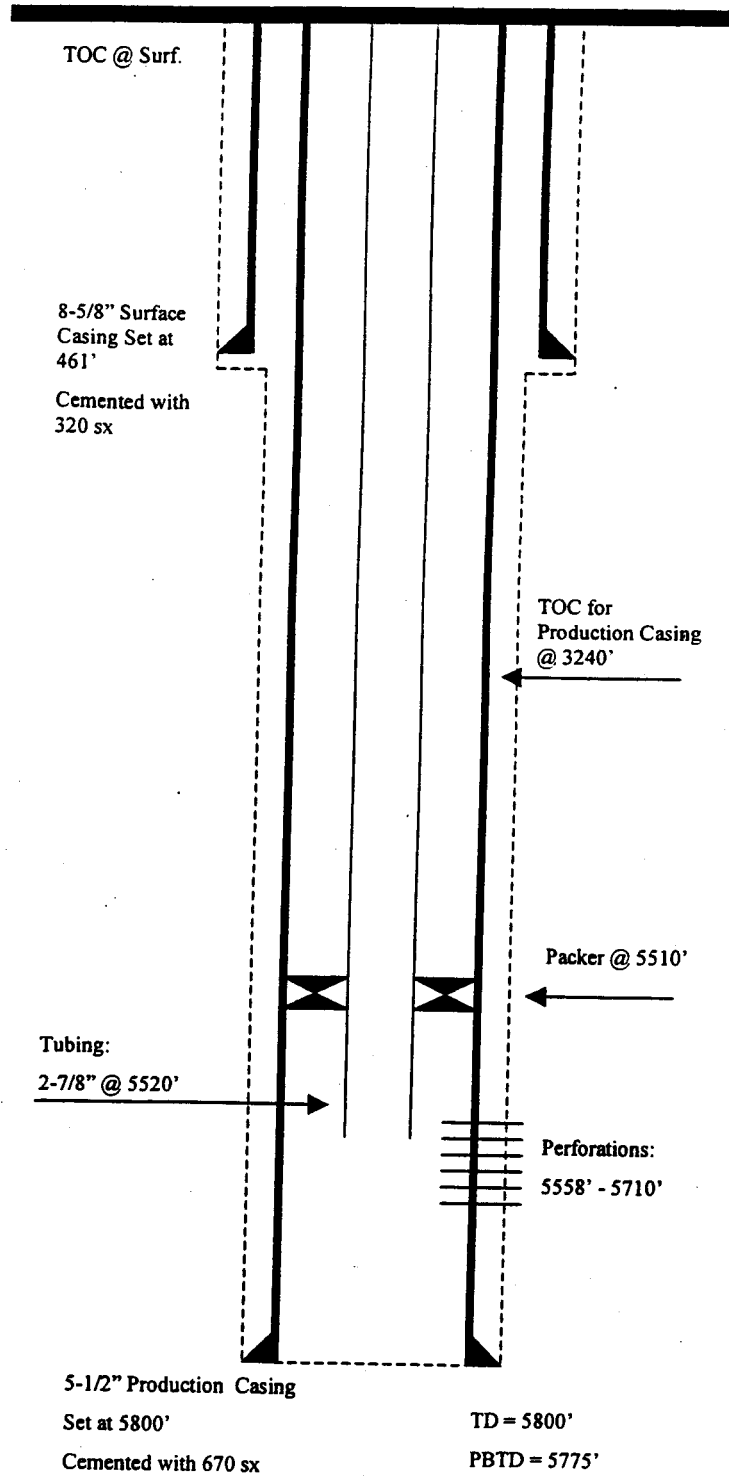
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  - (d) Sample or monitor, at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the SDWA any substances or parameters at any location.
- 8. **Records of the Permit Application.** The permittee shall maintain records of all data required to complete the permit application and any supplemental information submitted for a period of five (5) years from the effective date of this permit. This period may be extended by request of the Director at any time.
- 9. **Signatory Requirements.** All reports or other information requested by the Director shall be signed and certified according to 40 CFR § 144.32.
- 10. **Reporting of Noncompliance.**
  - (a) **Anticipated Noncompliance.** The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
  - (b) **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than thirty (30) days following each schedule date.
  - (c) **Twenty-four Hour Reporting.**
    - (i) The permittee shall report to the Director any noncompliance which may endanger health or the environment. Information shall be provided orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances by telephoning EPA at 303.312.6155 (during normal business hours) or at 303.293-1788 (for reporting at all other times). The following information shall be included in the verbal report:

- (A) Any monitoring or other information which indicates that any contaminant may cause endangerment to an underground source of drinking water.
  - (B) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.
- (ii) A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- (d) Other Noncompliance. The permittee shall report all other instances of noncompliance not otherwise reported at the time monitoring reports are submitted. The reports shall contain the information listed in Part III, Section E. 10.(C) (ii) of this permit.
- (e) Other Information. Where the permittee becomes aware that he failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall submit such correct facts or information within two (2) weeks of the time such information became known to him.

## **APPENDIX A**

**(Conversion Details)**

Current Well Construction



## APPENDIX B

### (Reporting Forms and Instructions)

1. EPA Form 7520- 7: APPLICATION TO TRANSFER PERMIT
2. EPA Form 7520-10: COMPLETION REPORT FOR BRINE DISPOSAL  
WELL
3. EPA Form 7520-11: ANNUAL DISPOSAL/INJECTION WELL  
MONITORING REPORT
4. EPA Form 7520-12: WELL REWORK RECORD
5. EPA Form 7520-13: PLUGGING RECORD
6. EPA Form MIT MECHANICAL INTEGRITY TEST

# Application To Transfer Permit

Name and Address of Existing Permittee		Name and Address of Surface Owner																																																		
<p>Locate Well and Outline Unit on Section Plat- 640 Acres</p> <div style="text-align: center;">N</div> <table border="1" style="margin: auto; border-collapse: collapse;"> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table> <div style="display: flex; justify-content: space-between; width: 100%;"> <span>W</span> <span>E</span> </div> <div style="text-align: center;">S</div>																																																		State	County	Permit Number
<p>Surface Location Description</p> <p>___ 1/4 of ___ 1/4 of ___ 1/4 of ___ 1/4 of Section ___ Township ___ Range ___</p> <p>Locate well in two directions from nearest lines of quarter section and drilling unit</p> <p>Surface Location ___ ft. from (N/S) ___ Line of quarter section and ___ ft. from (E/W) ___ Line of quarter section.</p>			<p>Type of Permit</p> <p>___ Individual</p> <p>___ Area</p> <p>Number of Wells ___</p>																																																	
<p>Well Activity</p> <p>___ Class I</p> <p>___ Class II</p> <p>___ Brine Disposal</p> <p>___ Enhanced Recovery</p> <p>___ Hydrocarbon Storage</p> <p>___ Class III</p> <p>___ Other</p>			<p>Well Status</p> <p>___ Operating</p> <p>___ Modification/Conversion</p> <p>___ Proposed</p>																																																	
Lease Number			Well Number																																																	
Name(s) and Address(es) of New Owners(s)		Name and Address of New Operator																																																		
<p><i>Attach to this application a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them.</i></p> <p><i>The new permittee must show evidence of financial responsibility by the submission of a surety bond, or other adequate assurance, such as financial statements or other materials acceptable to the Director.</i></p>																																																				
<h3>Certification</h3> <p>I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)</p>																																																				
Name and Official Title (Please type or print)		Signature		Date Signed																																																

EPA Form 7520-10



## ANNUAL DIS. SAL/INJECTION WELL MONI. RING REPORT

NAME AND ADDRESS OF EXISTING PERMITTEE

NAME AND ADDRESS OF SURFACE OWNER

LOCATE WELL AND OUTLINE UNIT ON  
SECTION PLAT — 640 ACRES

STATE

**COUNTY**

**PERMIT NUMBER**

### SURFACE LOCATION DESCRIPTION

**SURFACE LOCATION DESCRIPTION**  
 1/4 of 1/4 of 1/4 of 1/4 of Section Township Range

**LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT**

Surface  
Location \_\_\_\_\_ ft. from (N/S) \_\_\_\_\_ Line of quarter section

and \_\_\_\_\_ ft. from (E/W) \_\_\_\_\_ Line of quarter section

## WELL ACTIVITY

**TYPE OF PERMIT**

☐ Brine Disposal  
☐ Enhanced Recovery  
☐ Hydrocarbon Storage

☐ Individual  
☐ Area  
Number of Wells \_\_\_\_\_

**Lease Name**

Well Number

## INJECTION PRESSURE

**TOTAL VOLUME INJECTED**

**TUBING — CASING ANNULUS PRESSURE  
(OPTIONAL MONITORING)**

MONTH YEAR

YEAR

**AVERAGE PSNR**

**MAXIMUM PSIG**

232

**MAGP**

## MONTHLY PERIOD

**MAXIMUM 200**

## CERTIFICATION

*I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).*

NAME AND OFFICIAL TITLE (Please type or print)

**SIGNATURE**

**DATE SIGNED**



# WELL REWORK RECORD

NAME AND ADDRESS OF PERMITTEE

NAME AND ADDRESS OF CONTRACTOR

LOCATE WELL AND OUTLINE UNIT ON  
SECTION PLAT — 640 ACRES

N					
S					

W E

STATE

COUNTY

PERMIT NUMBER

SURFACE LOCATION DESCRIPTION

1/4 of 1/4 of 1/4 of 1/4 of Section Township Range

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface

Location ft. from (N/S) Line of quarter section

and ft. from (E/W) Line of quarter section

## WELL ACTIVITY

- ☐ Brine Disposal  
☐ Enhanced Recovery  
☐ Hydrocarbon Storage

Lease Name

Total Depth Before Rework

Total Depth After Rework

Date Rework Commenced

Date Rework Completed

## TYPE OF PERMIT

☐ Individual☐ Area

Number of Wells

Well Number

## WELL CASING RECORD — BEFORE REWORK

Casing		Cement		Perforations		Acid or Fracture Treatment Record
Size	Depth	Secks	Type	From	To	

## WELL CASING RECORD — AFTER REWORK (Indicate Additions and Changes Only)

Casing		Cement		Perforations		Acid or Fracture Treatment Record
Size	Depth	Secks	Type	From	To	

DESCRIBE REWORK OPERATIONS IN DETAIL  
USE ADDITIONAL SHEETS IF NECESSARY

## WIRE LINE LOGS, LIST EACH TYPE

Log Types

Logged Intervals

## CERTIFICATION

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).

NAME AND OFFICIAL TITLE (Please type or print)

SIGNATURE

DATE SIGNED



# PLUGGING RECO

NAME AND ADDRESS OF PERMITTEE

NAME AND ADDRESS OF CEMENTING COMPANY

STATE

COUNTY

PERMIT NUMBER

LOCATE WELL AND OUTLINE UNIT ON  
SECTION PLAT - 640 ACRES

SURFACE LOCATION DESCRIPTION

1/4 OF

1/4 OF

1/4 SECTION

TOWNSHIP

RANGE

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface

Location \_\_\_\_\_ ft. from (N/S) \_\_\_\_\_ Line of quarter section

and \_\_\_\_\_ ft. from (E/W) \_\_\_\_\_ Line of quarter section

TYPE OF AUTHORIZATION

☐ Individual Permit☐ Area Permit☐ Rule

Number of Wells \_\_\_\_\_

Lease Name

Describe in detail the manner in which the fluid was placed and the method used in introducing it into the hole

## CASING AND TUBING RECORD AFTER PLUGGING

SIZE	WT(LB/FT)	TO BE PUT IN WELL (FT)	TO BE LEFT IN WELL (FT)	HOLE SIZE

☐ CLASS I☐ CLASS II☐ Brine Disposal☐ Enhanced Recovery☐ Hydrocarbon Storage☐ CLASS III

WELL ACTIVITY

METHOD OF EMPLACEMENT OF CEMENT PLUGS

☐ The Balance Method☐ The Dump Seder Method☐ The Two-Plug Method☐ Other

## CEMENTING TO PLUG AND ABANDON DATA:

	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Size of Hole or Pipe in which Plug Will Be Placed (inches)							
Depth to Bottom of Tubing or Drill Pipe (ft.)							
Seals of Cement To Be Used (each plug)							
Slurry Volume To Be Pumped (cu. ft.)							
Calculated Top of Plug (ft.)							
Measured Top of Plug (if tagged ft.)							
Slurry Wt. (Lb./Gal.)							
Type Cement or Other Material (Class III)							

## LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS

From	To	From	To

Signature of Cementer or Authorized Representative

Signature of EPA Representative

## CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(REF. 40 CFR 122.22)

NAME AND OFFICIAL TITLE (Please type or print)

SIGNATURE

DATE SIGNED

# Mechanical Integrity Test

## Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency  
Underground Injection Control Program, UIC Direct Implementation Program 8P-W-GW  
999 18<sup>th</sup> Street, Suite 500 Denver, CO 80202-2466

EPA Witness: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Test conducted by: \_\_\_\_\_

Others present: \_\_\_\_\_

Well Name: _____	Type: ER SWD	Status: AC TA UC
Field: _____		
Location: _____	Sec: _____	T _____ N/S R _____ E/W County: _____ State: _____
Operator: _____		
Last MIT: ____/____/____	Maximum Allowable Pressure: _____ PSIG	

Is this a regularly scheduled test? ☐ Yes ☐ No

Initial test for permit? ☐ Yes ☐ No

Test after well rework? ☐ Yes ☐ No

Well injecting during test? ☐ Yes ☐ No If Yes, rate: \_\_\_\_\_ bpd

Pre-test casing/tubing annulus pressure: \_\_\_\_\_ psig

MIT DATA TABLE	Test #1	Test #2	Test #3
<b>TUBING PRESSURE</b>			
Initial Pressure	psig	psig	psig
End of test pressure	psig	psig	psig
<b>CASING / TUBING ANNULUS PRESSURE</b>			
0 minutes	psig	psig	psig
5 minutes	psig	psig	psig
10 minutes	psig	psig	psig
15 minutes	psig	psig	psig
20 minutes	psig	psig	psig
25 minutes	psig	psig	psig
30 minutes	psig	psig	psig
minutes	psig	psig	psig
minutes	psig	psig	psig
<b>RESULT</b>	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Does the annulus pressure build back up after the test ? ☐ Yes ☐ No

## **APPENDIX C**

### **PLUGGING & ABANDONMENT PLAN**

**and**

### **SCHEMATIC**

#### **Red Wash Unit #33-19B**

This plan has been reviewed and approved by the EPA. It is consistent with UIC requirements:

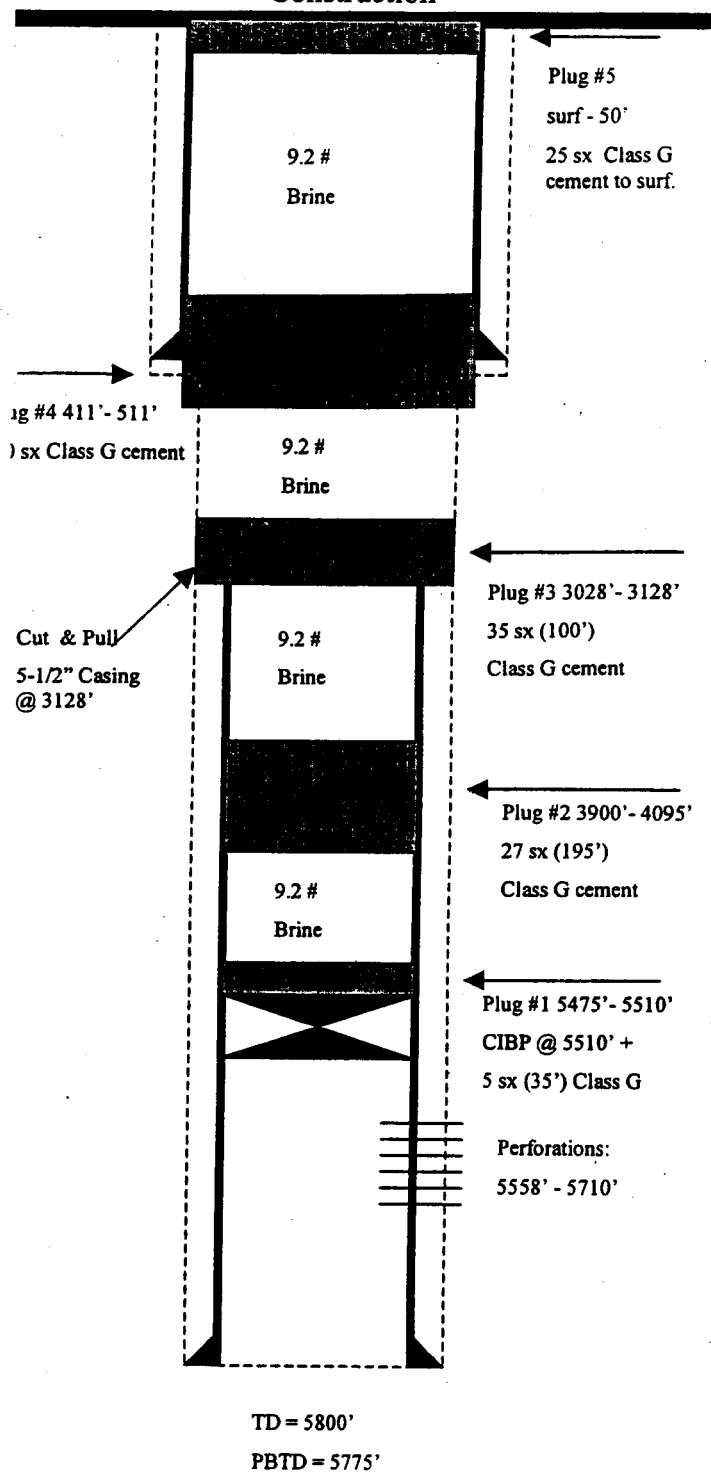
**NOTE: CEMENT PLUGS ARE TO BE SEPARATED BY  
BENTONITE MUD OR A 9.6 PPG PLUGGING GEL  
(BRINE WATER WITH A GELLING AGENT).**

## PLUGGING AND ABANDONMENT PLAN

RWU #33-19B

- (1) MIRU. ND WH and NU BOPE, Pull downhole equipment and clean out to PBTD, circulate hole clean.
- (2) Plug #1. Top perforations at 5558'. Set CIBP at 5510' and dump bail 35' (5 sx) Class "G" cement on top.
- (3) Plug #2. Oil shale interval 3950'-4045'. Set balanced cement plug across interval 3900'-4095.
- (4) Plug #3 Green River top at 3078'. Cut and pull 5-1/2" csg at 3128' and set balanced plug from 3028'-3128'.
- (5) Plug #4 Surface csg shoe @ 461'. Set balanced plug from 411'-511'.
- (6) Plug #5 Surface to 50'. Balanced plug.
- (7) Weld on marker and clean location

# Plugging and Abandonment Construction



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an  
abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.  
U-020306. If Indian, Allottee or Tribe Name  
N/A7. If Unit or CA/Agreement, Name and/or No.  
RED WASH UNIT8. Well Name and No.  
RWU 33-19B9. API Well No.  
43-047-3349910. Field and Pool, or Exploratory  
RED WASH11. County or Parish, and State  
UINTAH COUNTY, UT**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**1. Type of Well  
☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator  
SHENANDOAH ENERGYContact: DAHN CALDWELL  
E-Mail: dcaldwell@shenandoahenergy.com3a. Address  
11002 E. 17500 S.  
VERNAL, UT 840783b. Phone No. (include area code)  
Ph: 435.781.4342  
Fx: 435.828.50444. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 19 T7S R23E NWSE 2606FSL 1851FEL

## 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input checked="" type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Proposal for conversion to Injection Well (See Attachment).

**Accepted by the  
Utah Division of  
Oil, Gas and Mining  
FOR RECORD ONLY****RECEIVED**

MAR 19 2002

DIVISION OF  
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #10778 verified by the BLM Well Information System  
For SHENANDOAH ENERGY, sent to the Vernal**

Name (Printed/Typed) JIM SIMONTON

Title COMPLETION MANAGER

Signature

(Electronic Submission)

Date 03/14/2002

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**\*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\*****CONFIDENTIAL**



**RWU #33-19B**  
**Red Wash Field**  
**NWSE S19-T7S-R23E**  
**Uintah County, Utah**  
**API # 43-047-33499**  
**AFE#**

**Narrative:**

This well was drilled in April 2000 and completed in June of 2000. The well IP'd at 34 BOPD and 0 BWD with no gas sales. The wellbore originally consisted of perfs.in the Gx3; Gy2 and Ly2 zones and all zones are still open in the well. A recompletion in Sept.2000 consisted of sand fracing the Gx3 and Gy2 zones. The proposal to convert this well into an injection well will be performed by adding perfs.in the Lw4 zone (5668-5670') and breakdown the perfs.and initiate injection. A bottom hole pressure (BHP) survey will be conducted prior to injection along with an MIT test.

TD @ 5800'  
Casing Shoe @ 5775'  
Float Collar @ '

**Conversion Procedure**

1. MIRU completion rig. POOH with rods and pump and lay down. NU BOP's. Pull the 2-7/8" tubing. RIH with 4-3/4" bit and 5-1/2" csg.scrapers and tbg. to PBTD of ~5740'. Circulate the hole with hot 2% KCL water and POOH with bit and scraper.
2. Perforate per the Density log interval 5668-70' (Lw4) at 4 JPF using a 4" casing gun and "Prospector" charges.
3. RIH with ret.BP and ret.pkr.and set ret.BP at ~5690' and pkr.at ~5650' and breakdown perfs.. Establish an injection rate and pressure.
4. POOH with ret.BP and pkr.and RIH with injection tubulars as follows:  
Arrowset ret.pkr.; 1 jt; SN; rest of 2-7/8" tbg.to surface.
5. Set pkr.at ~5500' after circulating packer fluid.
6. Perform MIT test of casing to >1000# and run a BHP survey with bombs hanging at ~5600'.
7. Turn well over to production department to start well injection.

**CONFIDENTIAL**

INJECTION WELL DATA RWU				
WELL: <u>33-19B</u>		Date: <u>10/11/01</u>		
OPEN PERFS CURRENT	ZONE	FINAL INJECTION ZONES	ACTION	COMMENTS
	Eu6 Ev5			<del>WAITING ON</del> <i>OK.</i> EPA APPROVAL
5558'-66	Gt7 Gu6 Gv5 Gw4			
5588-5566	Gx3	5588-5566		
5576-5578	Gy2	5576-5578		
5582-5584	Gy2	5582-5584		
	Lt7 Lu6 Lv5 Lv5 Lw4	5668-5670	perforate	
5699-5710	Lx3 Ly2	5699-5710		
	Mesa Mesa			

**ACTION**

1. Perforate Lw4, 5668-5670', and breakdown.
2. Equip well, hook-up, MIT, and commence injection.

1. BHP

2. MIT > 1000 psi.g

3. TOP PERF = 5558'



Questar Exploration and Production Company  
Independence Plaza  
1050 17th Street, Suite 500  
Denver, CO 80265  
Tel 303 672 6900 • Fax 303 294 9632

Denver Division

May 28, 2003

Division of Oil, Gas, & Mining  
1594 West North Temple, Suite 1210  
P. O. Box 145801  
Salt Lake City, Utah 84114-5801

Attention: John Baza/Jim Thompson

Gentlemen:

This will serve as notice that through the internal corporate changes described below, activities formerly conducted in the name of either Shenandoah Operating Company, LLC (SOC) and/or Shenandoah Energy, Inc. (SEI) will hereafter be conducted in the name of QEP Uinta Basin, Inc.: i) the Shenandoah entities were purchased in July, 2001 by Questar Market Resources, Inc., which is a mid-level holding company for the non-utility businesses of Questar Corporation, ii) Shenandoah Operating Company, LLC has now been merged into Shenandoah Energy, Inc. (SEI), iii) Shenandoah Energy, Inc. has now been re-named **QEP Uinta Basin, Inc.** pursuant to a State of Delaware Amended and Restated Certificate of Incorporation, iv) the same employees will continue to be responsible for operations of the former SOC and SEI properties, both in the field and in the office. Accordingly, the change involves only an internal corporate name change and no third party change of operator is involved. Please alter your records to reflect the entity name change. Attached is a spreadsheet listing all wells affected by this change.

Should you have any questions, please call me at 303 - 308-3056.

Yours truly,

Frank Nielsen  
Division Landman

Enclosure

RECEIVED

JUN 02 2003

DIV. OF OIL, GAS & MINING



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, UT 84145-0155

IN REPLY REFER TO  
UT-922

June 9, 2003

QEP Uinta Basin, Inc.  
1050 17<sup>th</sup> Street, Suite 500  
Denver, Colorado 80265

Re: Red Wash Unit  
Uintah County, Utah

Gentlemen:

On May 30, 2003, we received an indenture dated February 1, 2003, whereby Shenandoah Energy, Inc. changed its name and QEP Uinta Basin, Inc. was designated as Successor Unit Operator for the Red Wash Unit, Uintah County, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective June 9, 2003. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under Red Wash Unit Agreement.

Your nationwide (Eastern States) oil and gas bond No. B000024 will be used to cover all operations within the Red Wash Unit.

It is requested that you notify all interested parties of the name change of unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely,

/s/ Robert A. Henricks

Robert A. Henricks  
Chief, Branch of Fluid Minerals

Enclosure

bcc: Field Manager - Vernal (w/enclosure)  
SITLA  
Division of Oil, Gas & Mining  
Minerals Adjudication Group  
File – Red Wash Unit (w/enclosure)  
Agr. Sec. Chron  
Fluid Chron

UT922:TAThompson:tt:6/9/03

**JUL 07 2003**

3104 (932.34)WF  
Nationwide Bond ESB000024

**NOTICE**

QEP Uinta Basin, Inc.  
1050 17<sup>th</sup> Street Suite 500  
Denver, Colorado 80265

:  
: Oil and Gas  
: lease  
:

**Name Change Recognized**

Acceptable evidence has been filed in this office concerning the name change of Shenandoah Energy Incorporated into QEP Uinta Basin, Incorporated. QEP Uinta Basin, Incorporated is the surviving entity. This name change is recognized effective April 17, 2003.

Eastern States will notify the Minerals Management Service and all applicable Bureau of Land Management offices of the change by a copy of this notice.

If you identify other leases in which the merging entity maintain an interest, please contact this office and we will appropriately document those files with a copy of this notice.

If you have any questions, please contact Bill Forbes at 703-440-1536.

*S/Wilbert B. Forbes*

Wilbert B. Forbes  
Land Law Examiner  
Branch of Use Authorization  
Division of Resources Planning,  
Use and Protection

bc: JFO,MMS, ES RF, 930 RF, 932.34 RF, E-932: wbf:07 /07/03:440-1536/ QEP Uinta Basin  
MFO

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

UIC FORM 5

TRANSFER OF AUTHORITY TO INJECT

Well Name and Number <u>See Attached List</u>		API Number
Location of Well		Field or Unit Name <u>Red Wash</u>
Footage :	County : <u>Uintah</u>	Lease Designation and Number
QQ, Section, Township, Range:	State : <u>UTAH</u>	

EFFECTIVE DATE OF TRANSFER: \_\_\_\_\_

CURRENT OPERATOR

Company: Shenandoah Energy Inc  
Address: 11002 East 17500 South  
city Vernal state UT zip 84078  
Phone: (435) 781-4300  
Comments:

Name: John Busch  
Signature: John Busch  
Title: District Foreman  
Date: 9-02-03

NEW OPERATOR

Company: QEP Uinta Basin, Inc.  
Address: 11002 East 17500 South  
city Vernal state UT zip 84078  
Phone: \_\_\_\_\_  
Comments:

Name: John Busch  
Signature: John Busch  
Title: District Foreman  
Date: 9-02-03

(This space for State use only)

Transfer approved by: [Signature]

Approval Date: 9-10-03

Title: Regional Services Manager

Comments: Case #105-01  
located in Indian Country, EPA  
is primary use agency.

RECEIVED

SEP 04 2003

DIV. OF OIL, GAS & MINING

well_name	Sec	T	R	api	Entity	Lease Type	type	stat	Field	Footages
RED WASH UNIT 261	17	070S	230E	4304732739	5670	Federal	WI	A	Red Wash	1785 FSL, 1843 FWL
RWU 100-A (43-21A)	21	070S	220E	4304715219	5670	Federal	WI	A	Red Wash	1787 FSL, 534 FEL
RWU 102 (41-24A)	24	070S	220E	4304715221	5670	Federal	WI	A	Red Wash	1360 FNL, 660 FEL
RWU 11	27	070S	230E	4304715142	5670	Federal	WI	A	Red Wash	660 FSL, 2030 FEL
RWU 11-19B	19	070S	230E	4304733552	5670	Federal	WI	A	Red Wash	618 FNL, 477 FWL
RWU 11-20B	20	070S	230E	4304733553	5670	Federal	WI	A	Red Wash	761 FNL, 677 FWL
RWU 11-25A	25	070S	220E	4304733574	5670	Federal	WI	A	Red Wash	1206 FNL, 491 FWL
RWU 11-29B	29	070S	230E	4304733590	5670	Federal	WI	A	Red Wash	786 FNL, 819 FWL
RWU 11-30B	30	070S	230E	4304733785	5670	Federal	WI	A	Red Wash	590 FNL, 787 FWL
RWU 12-24A	24	070S	220E	4304733591	5670	Federal	WI	A	Red Wash	1528 FNL, 930 FWL
RWU 13-19B	19	070S	230E	4304733497	5670	Federal	WI	A	Red Wash	1802 FSL, 374 FWL
RWU 13-20B	20	070S	230E	4304733498	5670	Federal	WI	A	Red Wash	2143' FSL, 704' FWL
RWU 13-25A	25	070S	220E	4304733575	5670	Federal	WI	A	Red Wash	1446 FSL, 664 FWL
RWU 14 (14-13B)	13	070S	230E	4304715144	5670	Federal	WI	A	Red Wash	660 FSL, 660 FWL
RWU 148 (13-22B)	22	070S	230E	4304715261	5670	Federal	WI	A	Red Wash	2073 FSL, 660 FWL
RWU 150 (31-22B)	22	070S	230E	4304715263	5670	Federal	WI	I	Red Wash	595 FNL, 1935 FEL
RWU 156 (23-15B)	15	070S	230E	4304715267	5670	Federal	WI	A	Red Wash	2115 FSL, 1982 FWL
RWU 16 (43-28B)	28	070S	230E	4304716475	5670	Federal	WI	I	Red Wash	1980 FSL, 660 FEL
RWU 161 (14-20B)	20	070S	230E	4304715271	5670	Federal	WI	I	Red Wash	660 FSL, 678 FWL
RWU 17 (41-20B)	20	070S	230E	4304715146	5670	Federal	WI	A	Red Wash	660 FNL, 660 FEL
RWU 170 (41-15B)	15	070S	230E	4304716495	5670	Federal	WI	I	Red Wash	660 FNL, 660 FEL
RWU 173 (21-21B)	21	070S	230E	4304716496	5670	Federal	WI	A	Red Wash	660 FNL, 1980 FWL
RWU 174 (21-20B)	20	070S	230E	4304715281	5670	Federal	WI	A	Red Wash	660 FNL, 1980 FWL
RWU 182 (14-21B)	21	070S	230E	4304716497	5670	Federal	WI	A	Red Wash	629 FSL, 652 FWL
RWU 183 (33-13B)	13	070S	230E	4304715289	5670	Federal	WI	A	Red Wash	1833 FSL, 2027 FEL
RWU 185 (41-1B)	14	070S	230E	4304716498	5670	Federal	WI	A	Red Wash	747 FNL, 660 FEL
RWU 199 (43-22A)	22	070S	220E	4304715301	5670	Federal	WI	A	Red Wash	1980 FSL, 658 FEL
RWU 2 (14-24B)	24	070S	230E	4304716472	5670	Federal	WI	A	Red Wash	735 FSL, 790 FWL
RWU 202 (21-34A)	34	070S	220E	4304715303	5670	Federal	WI	I	Red Wash	660 FNL, 1980 FWL
RWU 213 (41-33B)	33	070S	230E	4304720060	5670	Federal	WD	A	Red Wash	660 FNL, 580 FEL
RWU 215 (43-28A)	28	070S	220E	4304730058	5670	Federal	WI	A	Red Wash	1980' FSL, 661 FEL
RWU 216 (21-27A)	27	070S	220E	4304730103	5670	Federal	WI	A	Red Wash	660 FNL, 1976 FWL
RWU 23 (21-23B)	23	070S	230E	4304715151	5670	Federal	WI	A	Red Wash	695 FNL, 2015 FWL
RWU 23-18C (97)	18	070S	240E	4304715216	5670	Federal	WI	I	Red Wash	1956 FSL, 1699 FWL
RWU 25 (23-23B)	23	070S	230E	4304716476	5670	Federal	WI	A	Red Wash	1980 FSL, 1980 FWL
RWU 258 (34-22A)	22	070S	220E	4304730458	5670	Federal	WI	A	Red Wash	885 FSL, 2025 FEL

RWU 263 (24-26B)	26	070S	230E	4304730518	5670 Federal	WI	I	Red Wash	591 FSL, 2007 FWL
RWU 264 (31-35B)	35	070S	230E	4304730519	5670 Federal	WI	A	Red Wash	687 FNL, 2025 FEL
RWU 266 (33-26B)	26	070S	230E	4304730521	5670 Federal	WI	I	Red Wash	1980 FSL, 1980 FEL
RWU 268 (43-17B)	17	070S	230E	4304732980	5670 Federal	WI	A	Red Wash	1924 FSL, 981 FEL
RWU 269 (13-26B)	26	070S	230E	4304730522	5670 Federal	WI	I	Red Wash	2170' FSL, 670' FWL
RWU 271 (42-35B)	35	070S	230E	4304731081	5670 Federal	WI	I	Red Wash	1979 FNL, 660 FEL
RWU 274 (13-25B)	25	070S	230E	4304731083	5670 Federal	WI		Red Wash	2129 FSL, 659 FWL
RWU 275 (31-26B)	26	070S	230E	4304731077	5670 Federal	WI	A	Red Wash	675 FNL, 1869 FEL
RWU 279 (11-36B)	36	070S	230E	4304731052	5670 Federal	WI	A	Red Wash	659 FNL, 660 FWL
RWU 283 (43-18B)	18	070S	230E	4304732982	5670 Federal	WI	A	Red Wash	1899 FSL, 708 FEL
RWU 31-19B	19	070S	230E	4304733555	5670 Federal	WI	A	Red Wash	601 FNL, 1770 FEL
RWU 31-25A	25	070S	220E	4304733577	5670 Federal	WI	A	Red Wash	1248 FNL, 2159 FEL
RWU 31-30B	30	070S	230E	4304733788	5670 Federal	WI	A	Red Wash	950 FNL, 1943 FEL
RWU 33-19B	19	070S	230E	4304733499	5670 Federal	WI	A	Red Wash	2606 FSL, 1851 FEL
RWU 33-20B	20	070S	230E	4304733500	5670 Federal	WI	A	Red Wash	2210 FSL, 2295 FEL
RWU 33-25A	25	070S	220E	4304733578	5670 Federal	WI	A	Red Wash	1413 FSL, 1809 FEL
RWU 33-30B	30	070S	230E	4304733790	5670 Federal	WI	A	Red Wash	1775 FSL, 1937 FEL
RWU 34 (23-14B)	14	070S	230E	4304715161	5670 Federal	WI	A	Red Wash	1980 FSL, 1980 FWL
RWU 34-13A	13	070S	220E	4304733593	5670 Federal	WI	A	Red Wash	1302 FSL, 1725 FEL
RWU 34-24A	24	070S	220E	4304733568	5670 Federal	WI	A	Red Wash	1295 FSL, 2125 FEL
RWU 48 (32-19B)	19	070S	230E	4304715174	5670 Federal	WI	I	Red Wash	1830 FNL, 1980 FEL
RWU 56 (41-28B)	28	070S	230E	4304715182	5670 Federal	WI	A	Red Wash	660 FNL, 660 FEL
RWU 59 (12-24B)	24	070S	230E	4304716477	5670 Federal	WI	A	Red Wash	1980 FNL, 660 FWL
RWU 6 (41-21B)	21	070S	230E	4304716482	5670 Federal	WI	A	Red Wash	660' FNL, 660 FEL
RWU 61 (12-27A)	27	070S	220E	4304716478	5670 Federal	WI	I	Red Wash	2034 FNL, 689 FWL
RWU 68 (41-13B)	13	070S	230E	4304716485	5670 Federal	WI	I	Red Wash	660 FNL, 660 FEL
RWU 7 (41-27B)	27	070S	230E	4304716473	5670 Federal	WI	I	Red Wash	567 FNL, 621 FEL
RWU 88 (23-18B)	18	070S	230E	4304715210	5670 Federal	WI	A	Red Wash	1980 FSL, 1980 FWL
RWU 91 (33-22B)	22	070S	230E	4304716479	5670 Federal	WI	A	Red Wash	1980 FSL, 3300 FWL
RWU 93 (43-27B)	27	070S	230E	4304716480	5670 Federal	WI	I	Red Wash	660 FSL, 660 FEL
RWU 324 (23-16B)	16	070S	230E	4304733084	5670 State	WI	I	Red Wash	1274 FSL, 1838 FWL



## OPERATOR CHANGE WORKSHEET

## ROUTING

1. GLH

2. CDW

3. FILE

Change of Operator (Well Sold)

Designation of Agent/Operator

**X Operator Name Change**

Merger

The operator of the well(s) listed below has changed, effective:

2/1/2003

FROM: (Old Operator):	TO: ( New Operator):
N4235-Shenandoah Energy Inc 11002 E 17500 S Vernal, UT 84078-8526 Phone: (435) 781-4341	N2460-QEP Uinta Basin Inc 11002 E 17500 S Vernal, UT 84078-8526 Phone: (435) 781-4341

CA No.

Unit:

RED WASH UNIT

## WELL(S)

NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS	Confid
RWU 34-13A	13	070S	220E	4304733593	5670	Federal	WI	A	
RWU 34-24A	24	070S	220E	4304733568	5670	Federal	WI	A	
RWU 31-25A	25	070S	220E	4304733577	5670	Federal	WI	A	
RWU 33-25A	25	070S	220E	4304733578	5670	Federal	WI	A	
RWU 61 (12-27A)	27	070S	220E	4304716478	5670	Federal	WI	I	
RWU 34 (23-14B)	14	070S	230E	4304715161	5670	Federal	WI	A	
RWU 283 (43-18B)	18	070S	230E	4304732982	5670	Federal	WI	A	
RWU 31-19B	19	070S	230E	4304733555	5670	Federal	WI	A	
RWU 33-19B	19	070S	230E	4304733499	5670	Federal	WI	A	
RWU 48 (32-19B)	19	070S	230E	4304715174	5670	Federal	WI	I	
RWU 33-20B	20	070S	230E	4304733500	5670	Federal	WI	A	
RWU 6 (41-21B)	21	070S	230E	4304716482	5670	Federal	WI	A	
RWU 59 (12-24B)	24	070S	230E	4304716477	5670	Federal	WI	A	
RWU 269 (13-26B)	26	070S	230E	4304730522	5670	Federal	WI	I	
RWU 275 (31-26B)	26	070S	230E	4304731077	5670	Federal	WI	A	
RWU 56 (41-28B)	28	070S	230E	4304715182	5670	Federal	WI	A	
RWU 31-30B	30	070S	230E	4304733788	5670	Federal	WI	A	
RWU 33-30B	30	070S	230E	4304733790	5670	Federal	WI	A	
RWU 271 (42-35B)	35	070S	230E	4304731081	5670	Federal	WI	I	
RWU 279 (11-36B)	36	070S	230E	4304731052	5670	Federal	WI	A	

## OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 6/2/2003
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 6/2/2003
3. The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 6/19/2003
4. Is the new operator registered in the State of Utah: YES Business Number: 5292864-0151
5. If **NO**, the operator was contacted on: \_\_\_\_\_

6. (R649-9-2)Waste Management Plan has been received on: IN PLACE

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: 7/21/2003

8. **Federal and Indian Units:**

The BLM or BIA has approved the successor of unit operator for wells listed on: 7/21/2003

9. **Federal and Indian Communization Agreements ("CA"):**

The BLM or BIA has approved the operator for all wells listed within a CA on: n/a

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 9/10/2003

**DATA ENTRY:**

1. Changes entered in the **Oil and Gas Database** on: 9/16/2003

2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 9/16/2003

3. Bond information entered in RBDMS on: n/a

4. Fee wells attached to bond in RBDMS on: n/a

**STATE WELL(S) BOND VERIFICATION:**

1. State well(s) covered by Bond Number: 965-003-032

**FEDERAL WELL(S) BOND VERIFICATION:**

1. Federal well(s) covered by Bond Number: ESB000024

**INDIAN WELL(S) BOND VERIFICATION:**

1. Indian well(s) covered by Bond Number: 799446

**FEE WELL(S) BOND VERIFICATION:**

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 965-003-033

2. The **FORMER** operator has requested a release of liability from their bond on: n/a  
The Division sent response by letter on: n/a

**LEASE INTEREST OWNER NOTIFICATION:**

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

**COMMENTS:**



**Questar Exploration and Production Company**

1571 East 1700 South

Vernal, UT 84078

Tel 435 781 4097 • Fax 435 781 4066

A. M. Petrik  
Phone: 435-781-4092  
Fax: 435-781-4066  
Email: ann.petrik@questar.com

May 14, 2007

Via Certified Mail: 7006 2150 0002 4305 7947

Mr. Nathan Wiser (8ENF-UFO)  
U.S. Environmental Protection Agency, Region 8  
1595 Wynkoop Street  
Denver, Colorado 80202-1129

**RE: Mechanical Integrity Test (MIT)**  
**for**  
**RW 33-19B**  
**UIC #UT2903-04611**  
**API #43-047-33499**  
**Location: NWSE Section 19 T7S R23E**

**Accepted by the  
Utah Division of  
Oil, Gas and Mining  
FOR RECORD ONLY**

Dear Mr. Wiser:

Enclosed for the subject well is the successful MIT result including the Casing or Annulus Pressure Test form and the pressure test chart. The MIT for this well is a regularly scheduled test.

If you have any questions or require additional information, I can be reached at 435-781-4092.

Sincerely,

Ann M. Petrik  
Office Administrator I

**RECEIVED**

**MAY 17 2007**

**DIV. OF OIL, GAS & MINING**

Enclosures: MIT Casing or Annulus Pressure Test Form  
MIT Results Spreadsheet with Pressure Test Chart

cc: Utah Division of Oil Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

U.S. Department of the Interior  
Bureau of Land Management  
Vernal District Office  
170 South 500 East  
Vernal, Utah 84078

Division of Oil, Gas and Mining  
**OPERATOR CHANGE WORKSHEET**

**ROUTING**

1. DJJ

2. CDW

Change of Operator (Well Sold)

**X - Operator Name Change/Merger**

The operator of the well(s) listed below has changed, effective:

**1/1/2007**

<b>FROM: (Old Operator):</b> N2460-QEP Uinta Basin, Inc. 1050 17th St, Suite 500 Denver, CO 80265  Phone: 1 (303) 672-6900	<b>TO: ( New Operator):</b> N5085-Questar E&P Company 1050 17th St, Suite 500 Denver, CO 80265  Phone: 1 (303) 672-6900
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CA No.				Unit:	RED WASH UNIT			
WELL NAME	SEC TWN RNG			API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
SEE ATTACHED LISTS				*				

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 4/19/2007
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 4/16/2007
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 1/31/2005
- Is the new operator registered in the State of Utah: Business Number: 764611-0143
- (R649-9-2) Waste Management Plan has been received on: IN PLACE
- Inspections of LA PA state/fee well sites complete on: n/a
- Reports current for Production/Disposition & Sundries on: n/a
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 4/23/2007 BIA
- Federal and Indian Units:**  
The BLM or BIA has approved the successor of unit operator for wells listed on: 4/23/2007
- Federal and Indian Communization Agreements ("CA"):**  
The BLM or BIA has approved the operator for all wells listed within a CA on: \_\_\_\_\_
- Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: \_\_\_\_\_

**DATA ENTRY:**

- Changes entered in the **Oil and Gas Database** on: 4/30/2007 and 5/15/2007
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 4/30/2007 and 5/15/2007
- Bond information entered in RBDMS on: 4/30/2007 and 5/15/2007
- Fee/State wells attached to bond in RBDMS on: 4/30/2007 and 5/15/2007
- Injection Projects to new operator in RBDMS on: 4/30/2007 and 5/15/2007
- Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

**BOND VERIFICATION:**

- Federal well(s) covered by Bond Number: ESB000024
- Indian well(s) covered by Bond Number: 799446
- (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number 965003033
- The **FORMER** operator has requested a release of liability from their bond on: n/a

**LEASE INTEREST OWNER NOTIFICATION:**

- (R649-2-10) The **NEW** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

**COMMENTS: THIS IS A COMPANY NAME CHANGE.**

**SOME WELL NAMES HAVE BEEN CHANGED AS REQUESTED**

QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)  
RED WASH UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
RWU 1 (41-26B)	RW 41-26B	NENE	26	070S	230E	4304715135	5670	Federal	OW	TA
RWU 3 (34-23B)	RW 34-23B	SWSE	23	070S	230E	4304715136	5670	Federal	OW	P
RWU 4 (41-22B)	RW 41-22B	NENE	22	070S	230E	4304715137	5670	Federal	OW	TA
RWU 5 (41-23B)	RW 41-23B	NENE	23	070S	230E	4304715138	5670	Federal	OW	P
RWU 8 (32-22B)	RW 32-22B	SWNE	22	070S	230E	4304715139	5670	Federal	OW	P
RWU 9 (43-23B)	RW 43-23B	NESE	23	070S	230E	4304715140	5670	Federal	OW	P
RWU 10 (12-23B)	RW 12-23B	SWNW	23	070S	230E	4304715141	5670	Federal	OW	TA
RWU 11	RW 34-27B	SWSE	27	070S	230E	4304715142	99996	Federal	WI	A
RWU 13 (14-22B)	RW 14-22B	SWSW	22	070S	230E	4304715143	5670	Federal	OW	TA
RW 14-13B	RW 14-13B	SWSW	13	070S	230E	4304715144	99996	Federal	WI	A
RWU 15 (32-17C)	RW 32-17C	SWNE	17	070S	240E	4304715145	5670	Federal	OW	P
RWU 17 (41-20B)	RW 41-20B	NENE	20	070S	230E	4304715146	5670	Federal	WI	A
RWU 19 (34-26B)	RW 34-26B	SWSE	26	070S	230E	4304715148	5670	Federal	GW	S
RWU 21 (32-14B)	RW 32-14B	SWNE	14	070S	230E	4304715150	5670	Federal	OW	P
RWU 23 (21-23B)	RW 21-23B	SENW	23	070S	230E	4304715151	99996	Federal	WI	A
RWU 24 (34-14B)	RW 34-14B	SWSE	14	070S	230E	4304715152	5670	Federal	OW	S
RWU 26 (23-22B)	RW 23-22B	NESW	22	070S	230E	4304715153	5670	Federal	OW	TA
RWU 27 (43-14B)	RW 43-14B	NESE	14	070S	230E	4304715154	5670	Federal	OW	TA
RWU 28 (43-22B)	RW 43-22B	NESE	22	070S	230E	4304715155	5670	Federal	OW	P
RWU 29 (32-23B)	RW 32-23B	SWNE	23	070S	230E	4304715156	5670	Federal	OW	P
RW 23-13B	RW 23-13B	NESW	13	070S	230E	4304715157	5670	Federal	GW	TA
RWU 31 (34-22B)	RW 34-22B	SWSE	22	070S	230E	4304715158	5670	Federal	OW	P
RWU 33 (14-14B)	RW 14-14B	SWSW	14	070S	230E	4304715160	5670	Federal	GW	TA
RWU 34 (23-14B)	RW 23-14B	NESW	14	070S	230E	4304715161	99996	Federal	WI	A
RW 43-13B	RW 43-13B	NESE	13	070S	230E	4304715162	5670	Federal	OW	TA
RWU 36 (32-13B)	RW 32-13B	SWNE	13	070S	230E	4304715163	5670	Federal	GW	P
RWU 38 (14-23B)	RW 14-23B	SWSW	23	070S	230E	4304715165	5670	Federal	OW	P
RWU 39 (14-24A)	RW 14-24A	SWSW	24	070S	220E	4304715166	5670	Federal	OW	TA
RWU 40 (21-24B)	RW 21-24B	NENW	24	070S	230E	4304715167	5670	Federal	OW	TA
RWU 41 (34-13B)	RW 34-13B	SWSE	13	070S	230E	4304715168	5670	Federal	OW	P
RWU 42 (21-29C)	RW 21-29C	NENW	29	070S	240E	4304715169	5670	Federal	GW	P
RWU 43 (12-17B)	RW 12-17B	SWNW	17	070S	230E	4304715170	5670	Federal	OW	P
RWU 44 (32-33C)	RW 32-33C	SWNE	33	070S	240E	4304715171	5670	Federal	GW	P
RWU 45 (23-30B)	RW 23-30B	NESW	30	070S	230E	4304715172	5670	Federal	OW	TA
RWU 46 (41-21C)	RW 41-21C	NENE	21	070S	240E	4304715173	5670	Federal	GW	TA
RWU 48 (32-19B)	RW 32-19B	SWNE	19	070S	230E	4304715174	99996	Federal	WI	I
RWU 49 (12-29B)	RW 12-29B	SWNW	29	070S	230E	4304715175	5670	Federal	OW	TA
RWU 50 (14-23A)	RW 14-23A	SWSW	23	070S	220E	4304715176	5670	Federal	OW	P
RWU 52 (14-18B)	RW 14-18B	SWSW	18	070S	230E	4304715178	5670	Federal	OW	TA
RWU 53 (41-25A)	RW 41-25A	NENE	25	070S	220E	4304715179	5670	Federal	OW	TA
RWU 56 (41-28B)	RW 41-28B	NENE	28	070S	230E	4304715182	99996	Federal	WI	A



QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)  
RED WASH UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
RWU 57 (12-18C)	RW 12-18C	SWNW	18	070S	240E	4304715183	5670	Federal	OW	P
RWU 63 (21-22B)	RW 21-22B	NENW	22	070S	230E	4304715186	5670	Federal	GW	TA
RWU 64 (32-27B)	RW 32-27B	SWNE	27	070S	230E	4304715187	5670	Federal	OW	TA
RWU 66 (34-18B)	RW 34-18B	SWSE	18	070S	230E	4304715189	5670	Federal	OW	P
RWU 67 (42-22B)	RW 42-22B	SENE	22	070S	230E	4304715190	5670	Federal	OW	TA
RWU 69 (21-27B)	RW 21-27B	NENW	27	070S	230E	4304715191	5670	Federal	OW	TA
RWU 70 (23-22A)	RW 23-22A	NESW	22	070S	220E	4304715192	5670	Federal	OW	P
RWU 71 (21-18C)	RW 21-18C	NENW	18	070S	240E	4304715193	5670	Federal	OW	P
RWU 72 (23-27B)	RW 23-27B	NESW	27	070S	230E	4304715194	5670	Federal	OW	TA
RWU 74 (12-13B)	RW 12-13B	SWNW	13	070S	230E	4304715196	5670	Federal	GW	S
RWU 75 (21-26B)	RW 21-26B	NENW	26	070S	230E	4304715197	5670	Federal	OW	TA
RWU 76 (32-18C)	RW 32-18C	SWNE	18	070S	240E	4304715198	5670	Federal	GW	P
RWU 77 (21-13B)	RWU 77 (21-13B)	NENW	13	070S	230E	4304715199	5670	Federal	OW	P
RWU 78 (32-28B)	RW 32-28B	SWNE	28	070S	230E	4304715200	5670	Federal	OW	P
RWU 79 (12-27B)	RW 12-27B	SWNW	27	070S	230E	4304715201	5670	Federal	OW	TA
RWU 80 (14-27B)	RW 14-27B	SWSW	27	070S	230E	4304715202	5670	Federal	OW	S
RWU 81 (41-31B)	RW 41-31B	NENE	31	070S	230E	4304715203	5670	Federal	OW	P
RWU 83 (41-27A)	RW 41-27A	NENE	27	070S	220E	4304715205	5670	Federal	OW	P
RWU 84 (44-14B)	RW 44-14B	SESE	14	070S	230E	4304715206	5670	Federal	GW	P
RWU 88 (23-18B)	RW 23-18B	NESW	18	070S	230E	4304715210	5670	Federal	WI	A
RWU 90 (43-21B)	RW 43-21B	NESE	21	070S	230E	4304715211	5670	Federal	OW	P
RWU 92 (11-23B)	RW 11-23B	NWNW	23	070S	230E	4304715212	5670	Federal	OW	TA
RWU 94 (12-22A)	RW 12-22A	SWNW	22	070S	220E	4304715213	5670	Federal	OW	P
RWU 23-18C (97)	RW 23-18C	NESW	18	070S	240E	4304715216	99996	Federal	WI	I
RWU 99 (12-22B)	RW 12-22B	SWNW	22	070S	230E	4304715218	5670	Federal	OW	P
RWU 100-A (43-21A)	RW 43-21A	NESE	21	070S	220E	4304715219	5670	Federal	WI	A
RWU 101 (34-21B)	RW 34-21B	SWSE	21	070S	230E	4304715220	5670	Federal	OW	P
RWU 102 (41-24A)	RW 41-24A	SENE	24	070S	220E	4304715221	5670	Federal	WI	A
RWU 103 (34-15B)	RW 34-15B	SWSE	15	070S	230E	4304715222	5670	Federal	OW	P
RWU 108 (32-21B)	RW 32-21B	SWNE	21	070S	230E	4304715226	5670	Federal	OW	P
RWU 109 (21-28B)	RW 21-28B	NENW	28	070S	230E	4304715227	5670	Federal	OW	P
RWU 110 (23-23A)	RW 23-23A	NESW	23	070S	220E	4304715228	5670	Federal	OW	P
RWU 111 (32-24A)	RW 32-24A	SWNE	24	070S	220E	4304715229	5670	Federal	OW	S
RWU 112 (32-28A)	RW 32-28A	SWNE	28	070S	220E	4304715230	5670	Federal	OW	S
RWU 115 (21-19B)	RW 21-19B	NENW	19	070S	230E	4304715233	5670	Federal	OW	P
RWU 119 (43-29A)	RW 43-29A	NESE	29	070S	220E	4304715236	5670	Federal	OW	P
RWU 120 (23-28B)	RW 23-28B	NESW	28	070S	230E	4304715237	5670	Federal	OW	TA
RW 13-13B	RW 13-13B	NWSW	13	070S	230E	4304715238	5670	Federal	GW	P
RWU 122 (24-14B)	RW 24-14B	SESW	14	070S	230E	4304715239	5670	Federal	OW	P
RWU 125 (34-19B)	RW 34-19B	SWSE	19	070S	230E	4304715242	5670	Federal	OW	TA
RWU 126 (41-29A)	RW 41-29A	NENE	29	070S	220E	4304715243	5670	Federal	OW	P



Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
RWU 127 (12-19B)	RW 12-19B	SWNW	19	070S	230E	4304715244	5670	Federal	OW	S
RWU 129 (14-15B)	RW 14-15B	SWSW	15	070S	230E	4304715246	5670	Federal	OW	P
RWU 133 (41-34B)	RW 41-34B	NENE	34	070S	230E	4304715250	5670	Federal	OW	P
RWU 136 (43-19B)	RW 43-19B	NESE	19	070S	230E	4304715252	5670	Federal	OW	TA
RWU 137 (34-28B)	RW 34-28B	SWSE	28	070S	230E	4304715253	5670	Federal	GW	TA
RWU 138 (41-30B)	RW 41-30B	NENE	30	070S	230E	4304715254	5670	Federal	OW	P
RWU 140 (24-22B)	RW 24-22B	SESW	22	070S	230E	4304715255	5670	Federal	OW	P
RWU 141 (11-27B)	RW 11-27B	NWNW	27	070S	230E	4304715256	5670	Federal	OW	TA
RWU 143 (33-14B)	RW 33-14B	NWSE	14	070S	230E	4304715257	5670	Federal	OW	P
RWU 144 (21-18B)	RW 21-18B	NENW	18	070S	230E	4304715258	5670	Federal	OW	TA
RW 24-13B	RW 24-13B	SESW	13	070S	230E	4304715259	5670	Federal	OW	TA
RWU 147 (22-22B)	RW 22-22B	SESW	22	070S	230E	4304715260	5670	Federal	OW	TA
RWU 148 (13-22B)	RW 13-22B	NWSW	22	070S	230E	4304715261	99996	Federal	WI	A
RWU 150 (31-22B)	RW 31-22B	NWNE	22	070S	230E	4304715263	99996	Federal	WI	I
RWU 151 (42-14B)	RW 42-14B	SENE	14	070S	230E	4304715264	5670	Federal	OW	P
RWU 153 (14-29B)	RW 14-29B	SWSW	29	070S	230E	4304715265	5670	Federal	OW	P
RWU 156 (23-15B)	RW 23-15B	NESW	15	070S	230E	4304715267	99990	Federal	WI	A
RWU 158 (32-30B)	RW 32-30B	SWNE	30	070S	230E	4304715268	5670	Federal	OW	P
RWU 160 (32-15B)	RW 32-15B	SWNE	15	070S	230E	4304715270	5670	Federal	OW	P
RWU 161 (14-20B)	RW 14-20B	SWSW	20	070S	230E	4304715271	99996	Federal	WI	I
RWU 162 (12-20B)	RW 12-20B	SWNW	20	070S	230E	4304715272	5670	Federal	OW	P
RWU 164 (12-28B)	RW 12-28B	SWNW	28	070S	230E	4304715274	5670	Federal	OW	P
RWU 165 (32-26B)	RW 32-26B	SWNE	26	070S	230E	4304715275	5670	Federal	GW	TA
RWU 167 (23-21B)	RW 23-21B	NESW	21	070S	230E	4304715277	5670	Federal	OW	S
RWU 168 (23-24B)	RW 23-24B	NESW	24	070S	230E	4304715278	5670	Federal	OW	TA
RWU 172 (21-30B)	RW 21-30B	NENW	30	070S	230E	4304715280	5670	Federal	OW	TA
RWU 174 (21-20B)	RW 21-20B	NENW	20	070S	230E	4304715281	5670	Federal	WI	A
RWU 176 (31-28B)	RW 31-28B	NWNE	28	070S	230E	4304715283	5670	Federal	OW	TA
RWU 177 (42-28B)	RW 42-28B	SENE	28	070S	230E	4304715284	5670	Federal	OW	TA
RW 22-13B	RW 22-13B	SESW	13	070S	230E	4304715285	5670	Federal	OW	TA
RWU 180 (31-23B)	RW 31-23B	NWNE	23	070S	230E	4304715287	5670	Federal	OW	TA
RWU 181 (34-30B)	RW 34-30B	SWSE	30	070S	230E	4304715288	5670	Federal	OW	P
RW 33-13B	RW 33-13B	NWSE	13	070S	230E	4304715289	5670	Federal	WI	A
RWU 184 (23-26B)	RW 23-26B	NESW	26	070S	230E	4304715290	5670	Federal	GW	S
RWU 188 (23-20B)	RW 23-20B	NESW	20	070S	230E	4304715291	5670	Federal	OW	TA
RWU 192 (41-33A)	RW 41-33A	NENE	33	070S	220E	4304715294	5670	Federal	OW	P
RWU 193 (43-24B)	RW 43-24B	NESE	24	070S	230E	4304715295	5670	Federal	GW	TA
RWU 194 (12-14B)	RW 12-14B	SWNW	14	070S	230E	4304715296	5670	Federal	OW	S
RWU 196 (23-17C)	RW 23-17C	NESW	17	070S	240E	4304715298	5670	Federal	GW	TA
RWU 199 (43-22A)	RW 43-22A	NESE	22	070S	220E	4304715301	99996	Federal	WI	A
RWU 201 (32-28C)	RW 32-28C	SWNE	28	070S	240E	4304715302	5670	Federal	GW	P



QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)  
RED WASH UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
RWU 202 (21-34A)	RW 21-34A	NENW	34	070S	220E	4304715303	99996	Federal	WI	I
RWU 204 (23-25A)	RW 23-25A	NESW	25	070S	220E	4304715305	5670	Federal	OW	P
RWU 205 (23-21C)	RW 23-21C	NESW	21	070S	240E	4304715306	5670	Federal	GW	TA
RWU 2 (14-24B)	RW 14-24B	SWSW	24	070S	230E	4304716472	99996	Federal	WI	A
RWU 7 (41-27B)	RW 41-27B	NENE	27	070S	230E	4304716473	99996	Federal	WI	I
RWU 16 (43-28B)	RW 43-28B	NESE	28	070S	230E	4304716475	99996	Federal	WI	I
RWU 25 (23-23B)	RW 23-23B	NESW	23	070S	230E	4304716476	99996	Federal	WI	A
RWU 59 (12-24B)	RW 12-24B	SWNW	24	070S	230E	4304716477	99996	Federal	WI	A
RWU 61 (12-27A)	RW 12-27A	SWNW	27	070S	220E	4304716478	99996	Federal	WI	I
RWU 91 (33-22B)	RW 33-22B	NWSE	22	070S	230E	4304716479	99996	Federal	WI	A
RWU 93 (43-27B)	RW 43-27B	NESE	27	070S	230E	4304716480	99996	Federal	WI	I
RWU 6 (41-21B)	RW 41-21B	NENE	21	070S	230E	4304716482	99996	Federal	WI	A
RWU 68 (41-13B)	RW 41-13B	NENE	13	070S	230E	4304716485	99996	Federal	WI	I
RWU 170 (41-15B)	RW 41-15B	NENE	15	070S	230E	4304716495	99996	Federal	WI	I
RWU 173 (21-21B)	RW 21-21B	NENW	21	070S	230E	4304716496	99996	Federal	WI	A
RWU 182 (14-21B)	RW 14-21B	SWSW	21	070S	230E	4304716497	99996	Federal	WI	A
RWU 185 (41-1B)	RW 41-14B	NENE	14	070S	230E	4304716498	99996	Federal	WI	A
RWU 212 (41-8F)	RW 41-8F	NENE	08	080S	240E	4304720014	5670	Federal	GW	P
RWU 213 (41-33B)	RW 41-33B	NENE	33	070S	230E	4304720060	99996	Federal	WD	A
RWU 215 (43-28A)	RW 43-28A	NESE	28	070S	220E	4304730058	99996	Federal	WD	A
RWU 216 (21-27A)	RW 21-27A	NENW	27	070S	220E	4304730103	99996	Federal	WI	A
RWU 219 (44-21C)	RW 44-21C	SESE	21	070S	240E	4304730149	5670	Federal	GW	S
RWU 220 (22-23B)	RW 22-23B	SENW	23	070S	230E	4304730192	5670	Federal	OW	TA
RWU 221 (13-27B)	RW 13-27B	NWSW	27	070S	230E	4304730199	5670	Federal	OW	TA
RWU 222 (31-27B)	RW 31-27B	NWNE	27	070S	230E	4304730200	5670	Federal	GW	TA
RWU 224 (44-22B)	RW 44-22B	SESE	22	070S	230E	4304730202	5670	Federal	GW	TA
RWU 225 (13-23B)	RW 13-23B	NWSW	23	070S	230E	4304730212	5670	Federal	GW	TA
RWU 226 (24-23B)	RW 24-23B	SESW	23	070S	230E	4304730249	5670	Federal	GW	S
RWU 227 (14-26B)	RW 14-26B	SWSW	26	070S	230E	4304730257	5670	Federal	OW	TA
RWU 228 (21-34B)	RW 21-34B	NENW	34	070S	230E	4304730258	5670	Federal	OW	P
RWU 229 (43-26B)	RW 43-26B	NESE	26	070S	230E	4304730259	5670	Federal	OW	TA
RWU 230 (14-18C)	RW 14-18C	SWSW	18	070S	240E	4304730309	5670	Federal	OW	P
RWU 231 (21-35B)	RW 21-35B	NENW	35	070S	230E	4304730310	5670	Federal	OW	TA
RWU 232 (12-26B)	RW 12-26B	SWNW	26	070S	230E	4304730311	5670	Federal	OW	TA
RWU 233 (12-25B)	RW 12-25B	SWNW	25	070S	230E	4304730312	5670	Federal	OW	TA
RWU 234 (32-24B)	RW 32-24B	SWNE	24	070S	230E	4304730313	5670	Federal	OW	P
RWU 235 (34-18C)	RW 34-18C	SWSE	18	070S	240E	4304730314	5670	Federal	OW	S
RWU 236 (21-19C)	RW 21-19C	NENW	19	070S	240E	4304730340	5670	Federal	GW	P
RWU 237 (14-25B)	RW 14-25B	SWSW	25	070S	230E	4304730341	5670	Federal	OW	P
RWU 238 (32-35B)	RW 32-35B	SWNE	35	070S	230E	4304730342	5670	Federal	OW	TA
RWU 239 (41-35B)	RW 41-35B	NENE	35	070S	230E	4304730343	5670	Federal	OW	TA



QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)  
RED WASH UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
RWU 240 (12-36B)	RW 12-36B	SWNW	36	070S	230E	4304730344	5670	Federal	OW	S
RWU 241 (22-14B)	RW 22-14B	SENW	14	070S	230E	4304730345	5670	Federal	OW	P
RW 42-13B	RW 42-13B	SENE	13	070S	230E	4304730346	5670	Federal	OW	P
RWU 243 (42-18C)	RW 42-18C	SENE	18	070S	240E	4304730347	5670	Federal	OW	TA
RWU 244 (23-19C)	RW 23-19C	NESW	19	070S	240E	4304730348	5670	Federal	GW	P
RWU 246 (22-18C)	RW 22-18C	SENW	18	070S	240E	4304730387	5670	Federal	OW	P
RWU 247 (22-17C)	RW 22-17C	SENW	17	070S	240E	4304730388	5670	Federal	GW	P
RWU 258 (34-22A)	RW 34-22A	SWSE	22	070S	220E	4304730458	5670	Federal	WI	A
RWU 262 (22-26B)	RW 22-26B	SENW	26	070S	230E	4304730517	5670	Federal	GW	TA
RWU 263 (24-26B)	RW 24-26B	SESW	26	070S	230E	4304730518	99996	Federal	WI	I
RWU 264 (31-35B)	RW 31-35B	NWNE	35	070S	230E	4304730519	99996	Federal	WI	A
RWU 265 (44-26B)	RW 44-26B	SESE	26	070S	230E	4304730520	5670	Federal	GW	P
RWU 266 (33-26B)	RW 33-26B	NWSE	26	070S	230E	4304730521	99996	Federal	WI	I
RWU 269 (13-26B)	RW 13-26B	NWSW	26	070S	230E	4304730522	99996	Federal	WI	A
RWU 273 (42-27B)	RW 42-27B	SENE	27	070S	230E	4304731051	5670	Federal	OW	TA
RWU 279 (11-36B)	RW 11-36B	NWNW	36	070S	230E	4304731052	99996	Federal	WI	A
RWU 276 (44-27B)	RW 44-27B	SESE	27	070S	230E	4304731053	5670	Federal	OW	TA
RWU 272 (44-23B)	RW 44-23B	SESE	23	070S	230E	4304731054	5670	Federal	GW	P
RWU 278 (11-26)	RW 11-26	NWNW	26	070S	230E	4304731076	5670	Federal	GW	TA
RWU 275 (31-26B)	RW 31-26B	NWNE	26	070S	230E	4304731077	99996	Federal	WI	A
RWU 280 (11-35B)	RW 11-35B	NWNW	35	070S	230E	4304731079	5670	Federal	OW	P
RWU 282 (42-26B)	RW 42-26B	SENE	26	070S	230E	4304731080	5670	Federal	GW	TA
RWU 271 (42-35B)	RW 42-35B	SENE	35	070S	230E	4304731081	5670	Federal	WI	I
RWU 270 (22-35B)	RW 22-35B	SENW	35	070S	230E	4304731082	5670	Federal	OW	P
RWU 284 (33-23B)	RW 33-23B	NWSE	23	070S	230E	4304731476	5670	Federal	GW	TA
RWU 285 (11-24B)	RW 11-24B	NWNW	24	070S	230E	4304731477	5670	Federal	OW	P
RWU 286 (42-21B)	RW 42-21B	SENE	21	070S	230E	4304731478	5670	Federal	OW	P
RW 44-13B	RW 44-13B	SESE	13	070S	230E	4304731512	5670	Federal	OW	TA
RWU 288 (24-27)	RW 24-27	SESW	27	070S	230E	4304731513	5670	Federal	OW	TA
RWU 289 (13-24B)	RW 13-24B	NWSW	24	070S	230E	4304731517	5670	Federal	OW	P
RWU 292 (42-23B)	RW 42-23B	SENE	23	070S	230E	4304731576	5670	Federal	GW	TA
RWU 295 (11-22B)	RW 11-22B	NWNW	22	070S	230E	4304731577	5670	Federal	GW	TA
RWU 296 (12-35B)	RW 12-35B	SWNW	35	070S	230E	4304731578	5670	Federal	OW	S
RWU 297 (24-15B)	RW 24-15B	SESW	15	070S	230E	4304731579	5670	Federal	OW	P
RWU 293 (22-22A)	RW 22-22A	SENW	22	070S	220E	4304731581	5670	Federal	OW	TA
RWU 294 (24-18C)	RW 24-18C	SESW	18	070S	240E	4304731582	5670	Federal	GW	P
RWU 298 (22-27B)	RW 22-27B	SENW	27	070S	230E	4304731679	5670	Federal	OW	TA
RWU 301 (43-15B)	RW 43-15B	NESE	15	070S	230E	4304731682	5670	Federal	GW	TA
RWU 302 (22-24B)	RW 22-24B	SENW	24	070S	230E	4304731683	5670	Federal	GW	TA
RWU 303 (34-17B)	RW 34-17B	SWSE	17	070S	230E	4304731819	5670	Federal	OW	P
RED WASH 305 (41-4F)	RW 41-4F	C-NE	04	080S	240E	4304732538	5670	Federal	GW	TA

QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)  
RED WASH UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
RED WASH 306	RW 23-23C	NESW	23	070S	240E	4304732629	5670	Federal	GW	P
RWU 207	RW 14-17B	SWSW	17	070S	230E	4304732738	5670	Federal	OW	P
RED WASH UNIT 261	RW 23-17B	NESW	17	070S	230E	4304732739	5670	Federal	WI	A
RWU 268 (43-17B)	RW 43-17B	NESE	17	070S	230E	4304732980	5670	Federal	WI	A
RWU 267 (32-17B)	RW 32-17B	SWNE	17	070S	230E	4304732981	5670	Federal	OW	P
RWU 283 (43-18B)	RW 43-18B	NESE	18	070S	230E	4304732982	5670	Federal	WI	A
RWU 299 (32-18B)	RW 32-18B	SWNE	18	070S	230E	4304733018	5670	Federal	OW	P
RWU 42-20B	RW 42-20B	SENE	20	070S	230E	4304733490	5670	Federal	OW	P
RWU 22-20B	RW 22-20B	SENE	20	070S	230E	4304733491	5670	Federal	OW	S
RWU 24-19B	RW 24-19B	SESW	19	070S	230E	4304733492	5670	Federal	OW	P
RWU 13-19B	RW 13-19B	NWSW	19	070S	230E	4304733497	5670	Federal	WI	A
RWU 13-20B	RW 13-20B	NWSW	20	070S	230E	4304733498	5670	Federal	WI	A
RWU 33-19B	RW 33-19B	NWSE	19	070S	230E	4304733499	5670	Federal	WI	A
RWU 33-20B	RW 33-20B	NWSE	20	070S	230E	4304733500	5670	Federal	WI	A
RED WASH 22-21B	RW 22-21B	SENE	21	070S	230E	4304733522	5670	Federal	OW	S
RED WASH 24-20B	RW 24-20B	SESW	20	070S	230E	4304733523	5670	Federal	OW	P
RED WASH 44-19B	RW 44-19B	SESE	19	070S	230E	4304733524	5670	Federal	OW	P
RED WASH 44-20B	RW 44-20B	SESE	20	070S	230E	4304733525	5670	Federal	OW	P
RWU 11-19B	RW 11-19B	NWNW	19	070S	230E	4304733552	5670	Federal	WI	A
RWU 11-20B	RW 11-20B	NWNW	20	070S	230E	4304733553	5670	Federal	WI	A
RWU 24-18B	RW 24-18B	SESW	18	070S	230E	4304733554	5670	Federal	OW	P
RWU 31-19B	RW 31-19B	NWNE	19	070S	230E	4304733555	5670	Federal	WI	A
RWU 42-19B	RW 42-19B	SENE	19	070S	230E	4304733556	5670	Federal	OW	P
RWU 22-19B	RW 22-19B	SENE	19	070S	230E	4304733559	5670	Federal	OW	P
RWU 23-24A	RW 23-24A	NESW	24	070S	220E	4304733567	5670	Federal	OW	P
RWU 34-24A	RW 34-24A	SWSE	24	070S	220E	4304733568	5670	Federal	WI	A
RWU 42-24A	RW 42-24A	SENE	24	070S	220E	4304733569	5670	Federal	OW	S
RWU 11-25A	RW 11-25A	NWNW	25	070S	220E	4304733574	5670	Federal	WI	A
RWU 13-25A	RW 13-25A	NWSW	25	070S	220E	4304733575	5670	Federal	WI	A
RWU 21-25A	RW 21-25A	NENW	25	070S	220E	4304733576	5670	Federal	OW	P
RWU 31-25A	RW 31-25A	NWNE	25	070S	220E	4304733577	5670	Federal	WI	A
RWU 33-25A	RW 33-25A	NWSE	25	070S	220E	4304733578	5670	Federal	WI	A
RW 41-25AX	RW 41-25A	NENE	25	070S	220E	4304733579	5670	Federal	OW	P
RWU 42-25A	RWU 42-25A	SENE	25	070S	220E	4304733580	5670	Federal	OW	TA
RWU 11-29B	RW 11-29B	NWNW	29	070S	230E	4304733590	5670	Federal	WI	A
RWU 12-24A	RW 12-24A	SWNW	24	070S	220E	4304733591	5670	Federal	WI	A
RWU 21-24A	RW 21-24A	NENW	24	070S	220E	4304733592	5670	Federal	OW	P
RWU 34-13A	RW 34-13A	SWSE	13	070S	220E	4304733593	5670	Federal	WI	A
RWU 44-18B	RW 44-18B	SESE	18	070S	230E	4304733594	5670	Federal	OW	P
RW 22-13A	RW 22-13A	SENE	13	070S	220E	4304733765	13296	Federal	OW	S
RWU 22-29B	RW 22-29B	SENE	29	070S	230E	4304733766	5670	Federal	OW	S



QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)  
RED WASH UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
RWU 41-24A	RW 41-24A	NENE	24	070S	220E	4304733769	5670	Federal	OW	P
RWU 42-30B	RW 42-30B	SENE	30	070S	230E	4304733771	5670	Federal	OW	P
RWU 44-30B	RWU 44-30B	SESE	30	070S	230E	4304733772	5670	Federal	OW	P
RWU 11-30B	RW 11-30B	NWNW	30	070S	230E	4304733785	5670	Federal	WI	A
RWU 22-25A	RW 22-25A	SENE	25	070S	220E	4304733786	5670	Federal	OW	P
RWU 31-30B	RW 31-30B	NWNE	30	070S	230E	4304733788	5670	Federal	WI	A
RWU 33-30B	RW 33-30B	NWSE	30	070S	230E	4304733790	5670	Federal	WI	A
RED WASH U 34-27C	RW 34-27C	SWSE	27	070S	240E	4304735045	5670	Federal	GW	P
RWU 34-22C	RW 34-22C	SWSE	22	070S	240E	4304735098	5670	Federal	GW	P
RW 12G-20C	RW 12G-20C	SWNW	20	070S	240E	4304735239	14011	Federal	GW	S
RW 43G-08F	RW 43G-08F	NESE	08	080S	240E	4304735655		Federal	GW	APD
RW 22G-09F	RW 22G-09F	SENE	09	080S	240E	4304735656	15636	Federal	GW	OPS
RWU 34-23AG	RW 34-23AG	SWSE	23	070S	220E	4304735668	5670	Federal	OW	P
RWU 34-27AG	RWU 34-27AD	SWSE	27	070S	220E	4304735669	5670	Federal	OW	DRL
RWU 32-27AG	RWU 32-27AG	SWNE	27	070S	220E	4304735670	5670	Federal	OW	S
RW 14-34AMU	RW 14-34AMU	SWSW	34	070S	220E	4304735671	14277	Federal	GW	P
RW 12-08FG	RW 12-08FG	SWNW	08	080S	240E	4304736348		Federal	GW	APD
RW 44-08FG	RW 44-08FG	SESE	08	080S	240E	4304736349	15261	Federal	GW	P
RW 12-17FG	RW 12-17FG	SWNW	17	080S	240E	4304736350		Federal	GW	APD
RW 34-34 AMU	RW 34-34 AD	SWSE	34	070S	220E	4304736351		Federal	GW	APD
RW 44-35 AMU	RW 44-35 AMU	SESE	35	070S	220E	4304736352		Federal	GW	APD
RW 14-35 AMU	RW 14-35 AMU	SWSW	35	070S	220E	4304736354		Federal	GW	APD
RW 33-31 BMU	RW 33-31 BD	NWSE	31	070S	230E	4304736357		Federal	GW	APD
RW 13-31 BMU	RW 13-31 BD	NWSW	31	070S	230E	4304736358		Federal	GW	APD
RW 32-15FG	RW 32-15FG	SWNE	15	080S	240E	4304736443		Federal	GW	APD
RW 21-26AG	RW 21-26AD	NENW	26	070S	220E	4304736768		Federal	OW	APD
RW 43-26AG	RW 43-26AG	NESE	26	070S	220E	4304736769		Federal	OW	APD
RW 43-23AG	RW 43-23AG	NESE	23	070S	220E	4304736770		Federal	OW	APD
RW 41-26AG	RW 41-26AG	NENE	26	070S	220E	4304736818		Federal	OW	APD
RW 04-25BG	RW 04-25B	NWSW	25	070S	230E	4304736982		Federal	OW	APD
RW 01-25BG	RW 01-25BG	NWNW	25	070S	230E	4304736983		Federal	OW	APD
RW 04-26BG	RW 04-26BG	SESW	26	070S	230E	4304736984		Federal	OW	APD
RW 01-26BG	RW 01-26BG	SWNW	26	070S	230E	4304736985		Federal	OW	APD
RW 01-35BG	RW 01-35BG	SWNW	35	070S	230E	4304736986		Federal	OW	APD

## RED WASH UNIT

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
RWU 51 (12-16B)	RW 12-16B	SWNW	16	070S	230E	4304715177	5670	State	OW	P
RWU ST 189 (41-16B)	RW 41-16B	NENE	16	070S	230E	4304715292	5670	State	OW	S
RED WASH UNIT 259	RW 14-16B	SWSW	16	070S	230E	4304732785	5670	State	OW	P
RED WASH UNIT 260	RW 34-16B	SWSE	16	070S	230E	4304732786	5670	State	OW	P
RWU 324 (23-16B)	RW 23-16B	SESW	16	070S	230E	4304733084	5670	State	WI	OPS
RWU 21W-36A	RWU 21W-36A	NENW	36	070S	220E	4304733730		State	GW	LA
RWU 21G-36A	RWU 21G-36A	NENW	36	070S	220E	4304733731		State	OW	LA
RWU 41-36A	RWU 41-36A	NENE	36	070S	220E	4304733732		State	OW	LA
RWU 43-16B	RWU 43-16B	NESE	16	070S	230E	4304733733		State	OW	LA
RWU 21-16B	RWU 21-16B	NENW	16	070S	230E	4304733734		State	OW	LA
RWU 11-36A	RWU 11-36A	NWNW	36	070S	220E	4304733736		State	OW	LA
RWU 13-36A	RWU 13-36A	NWSW	36	070S	220E	4304733737		State	OW	LA
RW 32G-16C	RW 32G-16C	SWNE	16	070S	240E	4304735238	5670	State	GW	P
RW 14-36AMU	RW 14-36AMU	SWSW	36	070S	220E	4304736721		State	GW	APD
RW 01-36BG	RW 01-36BG	NWNW	36	070S	230E	4304736887	5670	State	OW	S
RW 24-16BG	RW 24-16BG	SESW	16	070S	230E	4304737746	5670	State	OW	DRL
RW 12-32BG	RW 12-32BG	SWNW	32	070S	230E	4304737946	15841	State	GW	DRL

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL ☐ GAS WELL ☐ OTHER \_\_\_\_\_

2. NAME OF OPERATOR  
QUESTAR EXPLORATION AND PRODUCTION COMPANY

3. ADDRESS OF OPERATOR: 1050 17th Street Suite 500 CITY Denver STATE CO ZIP 80265 PHONE NUMBER: (303) 308-3068

4. LOCATION OF WELL

FOOTAGES AT SURFACE: attached

COUNTY: Uintah

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE: UTAH

5. LEASE DESIGNATION AND SERIAL NUMBER:  
see attached

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:  
see attached

7. UNIT or CA AGREEMENT NAME:  
see attached

8. WELL NAME and NUMBER:  
see attached

9. API NUMBER:  
attached

10. FIELD AND POOL, OR WILDCAT:

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: 1/1/2007	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: Operator Name Change
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective January 1, 2007 operator of record, QEP Uinta Basin, Inc., will hereafter be known as QUESTAR EXPLORATION AND PRODUCTION COMPANY. This name change involves only an internal corporate name change and no third party change of operator is involved. The same employees will continue to be responsible for operations of the properties described on the attached list. All operations will continue to be covered by bond numbers:

Federal Bond Number: 965002976 (BLM Reference No. ESB000024)

Utah State Bond Number: 965003033

Fee Land Bond Number: 965003033

Current operator of record, QEP UINTA BASIN, INC., hereby resigns as operator of the properties as described on the attached list.

Jay B. Neese, Executive Vice President, QEP Uinta Basin, Inc.

Successor operator of record, QUESTAR EXPLORATION AND PRODUCTION COMPANY, hereby assumes all rights, duties and obligations as operator of the properties as described on the attached list

Jay B. Neese, Executive Vice President  
Questar Exploration and Production Company

NAME (PLEASE PRINT) Debra K. Stanberry

TITLE Supervisor, Regulatory Affairs

SIGNATURE

DATE 3/16/2007

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APR 19 2007

DIV. OF OIL, GAS & MINING

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL  
OIL WELL ☐ GAS WELL ☐ OTHER \_\_\_\_\_

2. NAME OF OPERATOR  
QUESTAR EXPLORATION AND PRODUCTION COMPANY

3. ADDRESS OF OPERATOR  
1050 17th Street Suite 500 City: Denver STATE: CO ZIP: 80265  
PHONE NUMBER: (303) 308-3068

4. LOCATION OF WELL  
FOOTAGES AT SURFACE: attached

5. LEASE DESIGNATION AND SERIAL NUMBER:  
see attached

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:  
see attached

7. UNIT or CA AGREEMENT NAME:  
see attached

8. WELL NAME and NUMBER:  
see attached

9. API NUMBER:  
attached

10. FIELD AND POOL, OR WILDCAT:

COUNTY: Uintah

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>1/1/2007</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Well Name Changes</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PER THE ATTACHED LIST OF WELLS, QUESTAR EXPLORATION AND PRODUCTION COMPANY REQUESTS THAT THE INDIVIDUAL WELL NAMES BE UPDATED IN YOUR RECORDS.

NAME (PLEASE PRINT) Debra K. Stanberry

TITLE Supervisor, Regulatory Affairs

SIGNATURE [Signature] DATE 4/17/2007

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APR 19 2007

DIV. OF OIL, GAS & MINING



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, UT 84145-0155



IN REPLY REFER TO  
3180  
UT-922

April 23, 2007

Questar Exploration and Production Company  
1050 17th Street, Suite 500  
Denver, Colorado 80265

Re: Red Wash Unit  
Uintah County, Utah

Gentlemen:

On April 12, 2007, we received an indenture dated April 6, 2007, whereby QEP Uinta Basin, Inc. resigned as Unit Operator and Questar Exploration and Production Company was designated as Successor Unit Operator for the Red Wash Unit, Uintah County, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective April 23, 2007. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under the Red Wash Unit Agreement.

Your nationwide oil and gas bond No. ESB000024 will be used to cover all federal operations within the Red Wash Unit.

It is requested that you notify all interested parties of the change in unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely,

/s/ Greg J. Noble

Greg J. Noble  
Acting Chief, Branch of Fluid Minerals

Enclosure

bcc: Field Manager - Vernal (w/enclosure)  
SITLA  
Division of Oil, Gas & Mining  
File - Red Wash Unit (w/enclosure)  
Agr. Sec. Chron  
Reading File  
Central Files

UT922:TAThompson:tt:4/23/07

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APR 30 2007

DIV. OF OIL, GAS & MINING

# MECHANICAL INTEGRITY TEST CASING OR ANNULUS PRESSURE TEST

U.S. ENVIRONMENTAL PROTECTION AGENCY  
UNDERGROUND INJECTION CONTROL PROGRAM, UIC IMPLEMENTATION SECTION (8P-W-GW)  
999 18TH STREET, SUITE 300, DENVER, CO. 80202-2466

EPA WITNESS: NO DATE: 5/9/2007 TIME: 11:25 ☒ AM ☐ PM

TEST CONDUCTED BY: Dennis J. Paulson (Questar)

OTHERS PRESENT: (ADVANTAGE OILFIELD SERVICE) KEVIN CARTER ANN PETRIK (QUESTAR)

API NUMBER: 43-047-33499 EPA ID NUMBER: UT2903-04611

WELL NAME: <u>RW 33-19B</u>	TYPE: <input checked="" type="checkbox"/> ER <input type="checkbox"/> SWD	STATUS: <input checked="" type="checkbox"/> AC <input type="checkbox"/> TA <input type="checkbox"/> UC
FIELD: <u>RED WASH</u>		
WELL LOCATION: <u>NWSE S19-T7S-R23E</u> <input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	COUNTY: <u>UINTAH</u> STATE: <u>UTAH</u>	
OPERATOR: <u>QEP UINTA BASIN INC.</u>		
LAST MIT: <u>31-May-02</u>	MAXIMUM ALLOWABLE PRESSURE: <u>2085</u>	PSIG

IS THIS A REGULAR SCHEDULED TEST? ☒ YES ☐ NO

INITIAL TEST FOR PERMIT? ☐ YES ☒ NO

TEST AFTER WELL WORK? ☐ YES ☒ NO

WELL INJECTING DURING TEST? ☒ YES ☐ NO IF YES, RATE: 238 BPD

PRE-TEST CASING/TUBING ANNULUS PRESSURE: 2 :PSIG

MIT DATA TABLE		TEST #1	TEST #2	TEST #3
TUBING		PRESSURE		
INITIAL PRESSURE	<u>2036</u>	PSIG	PSIG	PSIG
END OF TEST PRESSURE	<u>2036</u>	PSIG	PSIG	PSIG

CASING/TUBING	ANNULUS	TUBING
0 MINUTES	<u>1136.5 @11:31:09</u> PSIG	<u>2036.4</u> PSIG
5 MINUTES	<u>1127.2 @11:36:09</u> PSIG	<u>2036.3</u> PSIG
10 MINUTES	<u>1125.8 @11:41:09</u> PSIG	<u>2036.3</u> PSIG
15 MINUTES	<u>1125.0 @11:46:10</u> PSIG	<u>2036.3</u> PSIG
20 MINUTES	<u>1124.5 @11:51:09</u> PSIG	<u>2036.2</u> PSIG
25 MINUTES	<u>1124.0 @11:56:09</u> PSIG	<u>2036.2</u> PSIG
30 MINUTES	<u>1123.6 @12:01:09</u> PSIG	<u>2036.3</u> PSIG
MINUTES	PSIG	PSIG
MINUTES	PSIG	PSIG

RESULT	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL
--------	--	-------------------------------	-------------------------------	-------------------------------	-------------------------------	-------------------------------

DOES THE ANNULUS PRESSURE BUILD BACK UP AFTER THE TEST? ☐ YES ☒ NO



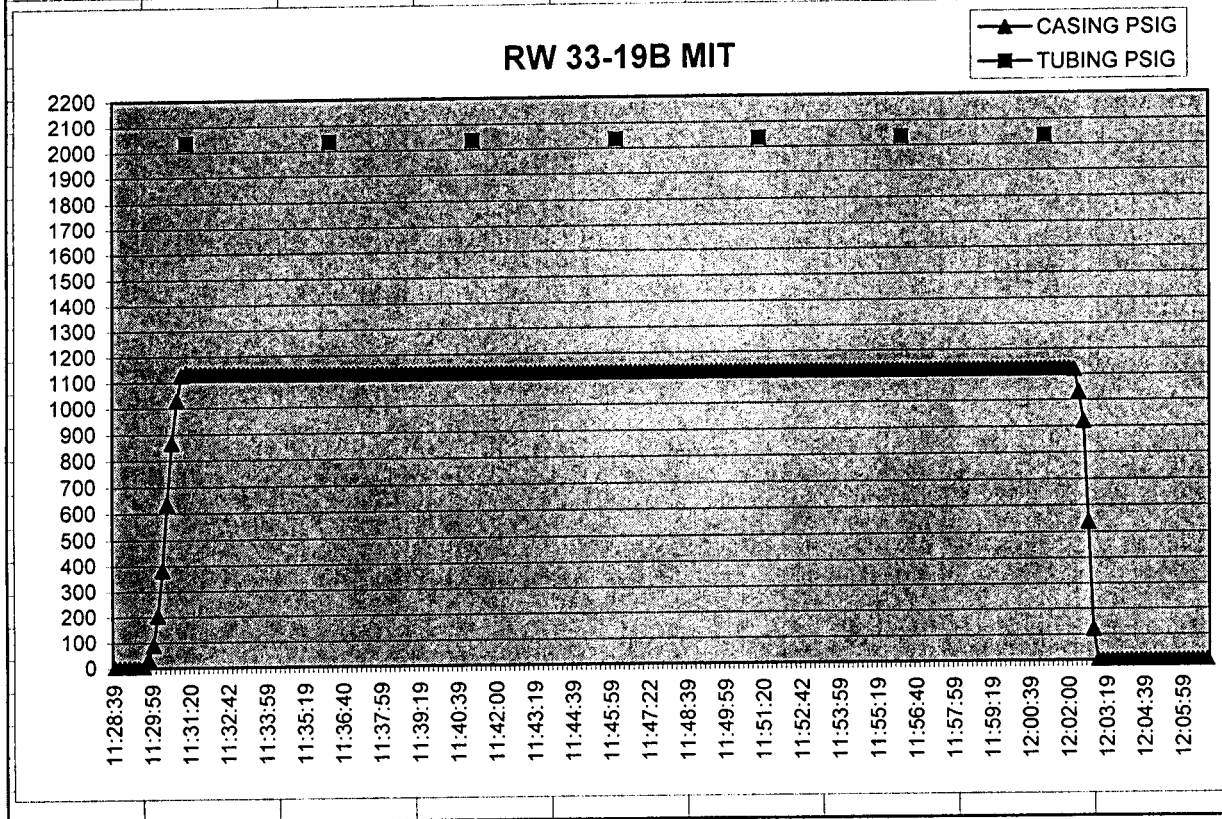
3000	PSIG	7049-1	2	FEB	7			
DATE	MONTH	YEAR	TIME	FILE	SAMPLE	CASING PSIG	TUBING PSIG	AMBIENT TEMP
9	MAY	2007	11:28:39	4	1	0		70
9	MAY	2007	11:28:49	4	2	0		70
9	MAY	2007	11:28:59	4	3	0		70
9	MAY	2007	11:29:09	4	4	0		70
9	MAY	2007	11:29:20	4	5	0		70
9	MAY	2007	11:29:32	4	6	0		70
9	MAY	2007	11:29:39	4	7	0		70
9	MAY	2007	11:29:49	4	8	33.599		70
9	MAY	2007	11:29:59	4	9	87.69		70
9	MAY	2007	11:30:09	4	10	203.42		70
9	MAY	2007	11:30:20	4	11	381.3		70
9	MAY	2007	11:30:32	4	12	634.6		70
9	MAY	2007	11:30:39	4	13	865.9		70
9	MAY	2007	11:30:49	4	14	1029.5		70
9	MAY	2007	11:30:59	4	15	1126.6		70
9	MAY	2007	11:31:09	4	16	1136.5	2036.4	70
9	MAY	2007	11:31:20	4	17	1131.6		70
9	MAY	2007	11:31:32	4	18	1130.5		70
9	MAY	2007	11:31:39	4	19	1130.7		70
9	MAY	2007	11:31:49	4	20	1131		70
9	MAY	2007	11:31:59	4	21	1131.2		70
9	MAY	2007	11:32:09	4	22	1130.9		70
9	MAY	2007	11:32:19	4	23	1130.6		70
9	MAY	2007	11:32:30	4	24	1130.2		70
9	MAY	2007	11:32:42	4	25	1129.9		70
9	MAY	2007	11:32:49	4	26	1129.7		70
9	MAY	2007	11:32:59	4	27	1129.5		70
9	MAY	2007	11:33:09	4	28	1129.3		70
9	MAY	2007	11:33:19	4	29	1129.1		70
9	MAY	2007	11:33:30	4	30	1129		70
9	MAY	2007	11:33:42	4	31	1128.8		70
9	MAY	2007	11:33:49	4	32	1128.6		70
9	MAY	2007	11:33:59	4	33	1128.5		70
9	MAY	2007	11:34:09	4	34	1128.4		70
9	MAY	2007	11:34:19	4	35	1128.2		70
9	MAY	2007	11:34:30	4	36	1128.1		70
9	MAY	2007	11:34:42	4	37	1128		70
9	MAY	2007	11:34:49	4	38	1127.9		70
9	MAY	2007	11:34:59	4	39	1127.8		70
9	MAY	2007	11:35:09	4	40	1127.7		70
9	MAY	2007	11:35:19	4	41	1127.6		70
9	MAY	2007	11:35:29	4	42	1127.5		70
9	MAY	2007	11:35:40	4	43	1127.4		70
9	MAY	2007	11:35:52	4	44	1127.3		70
9	MAY	2007	11:35:59	4	45	1127.3		70
9	MAY	2007	11:36:09	4	46	1127.2	2036.3	70
9	MAY	2007	11:36:19	4	47	1127.1		70
9	MAY	2007	11:36:29	4	48	1127.1		70
9	MAY	2007	11:36:40	4	49	1127		70

9	MAY	2007	11:36:52	4	50	1126.9		70
9	MAY	2007	11:36:59	4	51	1126.9		70
9	MAY	2007	11:37:09	4	52	1126.8		70
9	MAY	2007	11:37:19	4	53	1126.7		70
9	MAY	2007	11:37:29	4	54	1126.7		70
9	MAY	2007	11:37:40	4	55	1126.6		70
9	MAY	2007	11:37:52	4	56	1126.6		70
9	MAY	2007	11:37:59	4	57	1126.5		70
9	MAY	2007	11:38:09	4	58	1126.5		70
9	MAY	2007	11:38:19	4	59	1126.5		70
9	MAY	2007	11:38:29	4	60	1126.4		70
9	MAY	2007	11:38:39	4	61	1126.3		70
9	MAY	2007	11:38:50	4	62	1126.3		70
9	MAY	2007	11:39:02	4	63	1126.3		70
9	MAY	2007	11:39:09	4	64	1126.2		70
9	MAY	2007	11:39:19	4	65	1126.2		70
9	MAY	2007	11:39:29	4	66	1126.1		70
9	MAY	2007	11:39:39	4	67	1126.1		70
9	MAY	2007	11:39:50	4	68	1126		70
9	MAY	2007	11:40:02	4	69	1126		70
9	MAY	2007	11:40:09	4	70	1126		70
9	MAY	2007	11:40:19	4	71	1125.9		70
9	MAY	2007	11:40:29	4	72	1125.9		70
9	MAY	2007	11:40:39	4	73	1125.9		70
9	MAY	2007	11:40:50	4	74	1125.8		70
9	MAY	2007	11:41:02	4	75	1125.8		70
9	MAY	2007	11:41:09	4	76	1125.8	2036.3	70
9	MAY	2007	11:41:19	4	77	1125.7		70
9	MAY	2007	11:41:29	4	78	1125.7		70
9	MAY	2007	11:41:39	4	79	1125.7		70
9	MAY	2007	11:41:49	4	80	1125.6		70
9	MAY	2007	11:42:00	4	81	1125.6		70
9	MAY	2007	11:42:12	4	82	1125.6		70
9	MAY	2007	11:42:19	4	83	1125.6		70
9	MAY	2007	11:42:29	4	84	1125.5		70
9	MAY	2007	11:42:39	4	85	1125.5		70
9	MAY	2007	11:42:49	4	86	1125.5		70
9	MAY	2007	11:43:00	4	87	1125.4		70
9	MAY	2007	11:43:12	4	88	1125.4		70
9	MAY	2007	11:43:19	4	89	1125.4		70
9	MAY	2007	11:43:29	4	90	1125.4		70
9	MAY	2007	11:43:39	4	91	1125.3		70
9	MAY	2007	11:43:49	4	92	1125.3		70
9	MAY	2007	11:44:00	4	93	1125.3		70
9	MAY	2007	11:44:12	4	94	1125.3		70
9	MAY	2007	11:44:19	4	95	1125.2		70
9	MAY	2007	11:44:29	4	96	1125.2		70
9	MAY	2007	11:44:39	4	97	1125.2		70
9	MAY	2007	11:44:49	4	98	1125.2		70
9	MAY	2007	11:45:00	4	99	1125.1		70
9	MAY	2007	11:45:12	4	100	1125.1		70
9	MAY	2007	11:45:19	4	101	1125.1		70

9 MAY	2007	11:45:29	4	102	1125.1		70
9 MAY	2007	11:45:39	4	103	1125.1		69
9 MAY	2007	11:45:49	4	104	1125.1		69
9 MAY	2007	11:45:59	4	105	1125.1		69
9 MAY	2007	11:46:10	4	106	1125	2036.3	69
9 MAY	2007	11:46:22	4	107	1125		69
9 MAY	2007	11:46:29	4	108	1125		69
9 MAY	2007	11:46:39	4	109	1125		69
9 MAY	2007	11:46:49	4	110	1125		69
9 MAY	2007	11:46:59	4	111	1124.9		69
9 MAY	2007	11:47:10	4	112	1124.9		69
9 MAY	2007	11:47:22	4	113	1124.9		69
9 MAY	2007	11:47:29	4	114	1124.9		69
9 MAY	2007	11:47:39	4	115	1124.9		69
9 MAY	2007	11:47:49	4	116	1124.8		69
9 MAY	2007	11:47:59	4	117	1124.8		69
9 MAY	2007	11:48:10	4	118	1124.8		69
9 MAY	2007	11:48:22	4	119	1124.8		69
9 MAY	2007	11:48:29	4	120	1124.8		69
9 MAY	2007	11:48:39	4	121	1124.8		69
9 MAY	2007	11:48:49	4	122	1124.7		69
9 MAY	2007	11:48:59	4	123	1124.7		69
9 MAY	2007	11:49:09	4	124	1124.7		69
9 MAY	2007	11:49:20	4	125	1124.7		69
9 MAY	2007	11:49:32	4	126	1124.7		69
9 MAY	2007	11:49:39	4	127	1124.6		69
9 MAY	2007	11:49:49	4	128	1124.6		69
9 MAY	2007	11:49:59	4	129	1124.6		69
9 MAY	2007	11:50:09	4	130	1124.5		69
9 MAY	2007	11:50:20	4	131	1124.5		69
9 MAY	2007	11:50:32	4	132	1124.5		69
9 MAY	2007	11:50:39	4	133	1124.5		69
9 MAY	2007	11:50:49	4	134	1124.5		69
9 MAY	2007	11:50:59	4	135	1124.5		69
9 MAY	2007	11:51:09	4	136	1124.5	2036.2	69
9 MAY	2007	11:51:20	4	137	1124.4		69
9 MAY	2007	11:51:32	4	138	1124.4		69
9 MAY	2007	11:51:39	4	139	1124.4		69
9 MAY	2007	11:51:49	4	140	1124.4		69
9 MAY	2007	11:51:59	4	141	1124.4		69
9 MAY	2007	11:52:09	4	142	1124.3		69
9 MAY	2007	11:52:19	4	143	1124.3		69
9 MAY	2007	11:52:30	4	144	1124.3		69
9 MAY	2007	11:52:42	4	145	1124.3		69
9 MAY	2007	11:52:49	4	146	1124.3		69
9 MAY	2007	11:52:59	4	147	1124.3		69
9 MAY	2007	11:53:09	4	148	1124.3		69
9 MAY	2007	11:53:19	4	149	1124.2		69
9 MAY	2007	11:53:30	4	150	1124.2		69
9 MAY	2007	11:53:42	4	151	1124.2		69
9 MAY	2007	11:53:49	4	152	1124.2		69
9 MAY	2007	11:53:59	4	153	1124.2		69

9	MAY	2007	11:54:09	4	154	1124.2		69
9	MAY	2007	11:54:19	4	155	1124.1		69
9	MAY	2007	11:54:30	4	156	1124.1		69
9	MAY	2007	11:54:42	4	157	1124.1		69
9	MAY	2007	11:54:49	4	158	1124.1		69
9	MAY	2007	11:54:59	4	159	1124.1		69
9	MAY	2007	11:55:09	4	160	1124.1		69
9	MAY	2007	11:55:19	4	161	1124		69
9	MAY	2007	11:55:29	4	162	1124		69
9	MAY	2007	11:55:40	4	163	1124		69
9	MAY	2007	11:55:52	4	164	1124		69
9	MAY	2007	11:55:59	4	165	1124		69
9	MAY	2007	11:56:09	4	166	1124	2036.2	69
9	MAY	2007	11:56:19	4	167	1124		69
9	MAY	2007	11:56:29	4	168	1124		69
9	MAY	2007	11:56:40	4	169	1123.9		69
9	MAY	2007	11:56:52	4	170	1123.9		69
9	MAY	2007	11:56:59	4	171	1123.9		69
9	MAY	2007	11:57:09	4	172	1123.9		69
9	MAY	2007	11:57:19	4	173	1123.9		69
9	MAY	2007	11:57:29	4	174	1123.9		69
9	MAY	2007	11:57:40	4	175	1123.9		69
9	MAY	2007	11:57:52	4	176	1123.9		69
9	MAY	2007	11:57:59	4	177	1123.9		69
9	MAY	2007	11:58:09	4	178	1123.9		69
9	MAY	2007	11:58:19	4	179	1123.8		69
9	MAY	2007	11:58:29	4	180	1123.8		69
9	MAY	2007	11:58:39	4	181	1123.8		69
9	MAY	2007	11:58:50	4	182	1123.8		69
9	MAY	2007	11:59:02	4	183	1123.8		69
9	MAY	2007	11:59:09	4	184	1123.8		69
9	MAY	2007	11:59:19	4	185	1123.8		69
9	MAY	2007	11:59:29	4	186	1123.7		69
9	MAY	2007	11:59:39	4	187	1123.7		69
9	MAY	2007	11:59:50	4	188	1123.7		69
9	MAY	2007	12:00:02	4	189	1123.7		69
9	MAY	2007	12:00:09	4	190	1123.7		69
9	MAY	2007	12:00:19	4	191	1123.7		69
9	MAY	2007	12:00:29	4	192	1123.7		69
9	MAY	2007	12:00:39	4	193	1123.6		69
9	MAY	2007	12:00:50	4	194	1123.6		69
9	MAY	2007	12:01:02	4	195	1123.6		69
9	MAY	2007	12:01:09	4	196	1123.6	2036.3	69
9	MAY	2007	12:01:19	4	197	1123.6		69
9	MAY	2007	12:01:29	4	198	1123.6		69
9	MAY	2007	12:01:39	4	199	1123.6		69
9	MAY	2007	12:01:49	4	200	1123.6		69
9	MAY	2007	12:02:00	4	201	1123.5		69
9	MAY	2007	12:02:12	4	202	1120.2		69
9	MAY	2007	12:02:19	4	203	1031.9		69
9	MAY	2007	12:02:29	4	204	920.1		69
9	MAY	2007	12:02:39	4	205	537.9		69

9	MAY	2007	12:02:49	4	206	122.2	69
9	MAY	2007	12:03:00	4	207	0	69
9	MAY	2007	12:03:12	4	208	0	69
9	MAY	2007	12:03:19	4	209	0	69
9	MAY	2007	12:03:29	4	210	0	69
9	MAY	2007	12:03:39	4	211	0	69
9	MAY	2007	12:03:49	4	212	0	69
9	MAY	2007	12:04:00	4	213	0	69
9	MAY	2007	12:04:12	4	214	0	69
9	MAY	2007	12:04:19	4	215	0	69
9	MAY	2007	12:04:29	4	216	0	69
9	MAY	2007	12:04:39	4	217	0	69
9	MAY	2007	12:04:49	4	218	0	69
9	MAY	2007	12:05:00	4	219	0	69
9	MAY	2007	12:05:12	4	220	0	69
9	MAY	2007	12:05:19	4	221	0	69
9	MAY	2007	12:05:29	4	222	0	69
9	MAY	2007	12:05:39	4	223	0	69
9	MAY	2007	12:05:49	4	224	0	69
9	MAY	2007	12:05:59	4	225	0	69
9	MAY	2007	12:06:10	4	226	0	69
9	MAY	2007	12:06:22	4	227	0	69
9	MAY	2007	12:06:29	4	228	0	69
9	MAY	2007	12:06:39	4	229	0	69
9	MAY	2007	12:06:49	4	230	0	69



Division of Oil, Gas and Mining  
**OPERATOR CHANGE WORKSHEET** (for state use only)

ROUTING  
 CDW

Change of Operator (Well Sold)

**X - Operator Name Change**

The operator of the well(s) listed below has changed, effective:

**6/14/2010**

<b>FROM: (Old Operator):</b> N5085-Questar Exploration and Production Company 1050 17th St, Suite 500 Denver, CO 80265 Phone: 1 (303) 308-3048	<b>TO: ( New Operator):</b> N3700-QEP Energy Company 1050 17th St, Suite 500 Denver, CO 80265 Phone: 1 (303) 308-3048
--	---

CA No.

Unit:

RED WASH

WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
SEE ATTACHED								

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 6/28/2010
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 6/28/2010
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 6/24/2010
- Is the new operator registered in the State of Utah: Business Number: 764611-0143
- (R649-9-2) Waste Management Plan has been received on: Requested
- Inspections of LA PA state/fee well sites complete on: n/a
- Reports current for Production/Disposition & Sundries on: ok
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 8/16/2010 BIA not yet
- Federal and Indian Units:**  
The BLM or BIA has approved the successor of unit operator for wells listed on: 8/16/2010
- Federal and Indian Communization Agreements ("CA"):**  
The BLM or BIA has approved the operator for all wells listed within a CA on: N/A
- Underground Injection Control ("UIC")** Division has approved UIC Form 5 Transfer of Authority to Inject, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 6/29/2010

**DATA ENTRY:**

- Changes entered in the **Oil and Gas Database** on: 6/30/2010
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 6/30/2010
- Bond information entered in RBDMS on: 6/30/2010
- Fee/State wells attached to bond in RBDMS on: 6/30/2010
- Injection Projects to new operator in RBDMS on: 6/30/2010
- Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

**BOND VERIFICATION:**

- Federal well(s) covered by Bond Number: ESB000024
- Indian well(s) covered by Bond Number: 965010693
- (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number 965010695
- The **FORMER** operator has requested a release of liability from their bond on: n/a

**LEASE INTEREST OWNER NOTIFICATION:**

- (R649-2-10) The **NEW** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

**COMMENTS:**

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		5. LEASE DESIGNATION AND SERIAL NUMBER: <b>See attached</b>
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: <b>See attached</b>
1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		7. UNIT or CA AGREEMENT NAME: <b>See attached</b>
2. NAME OF OPERATOR: <b>Questar Exploration and Production Company</b> <i>N5085</i>		8. WELL NAME and NUMBER: <b>See attached</b>
3. ADDRESS OF OPERATOR: 1050 17th Street, Suite 500      City: <b>Denver</b> STATE: <b>CO</b> ZIP: <b>80265</b>		9. API NUMBER: <b>Attached</b>
4. LOCATION OF WELL  FOOTAGES AT SURFACE: <b>See attached</b>		10. FIELD AND POOL, OR WILDCAT: <b>See attached</b>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:		COUNTY: <b>Attached</b>  STATE: <b>UTAH</b>

11 CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will start: <u>6/14/2010</u>	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION (START/RESUME) <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	<input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUT-OFF <input checked="" type="checkbox"/> OTHER: <u>Operator Name Change</u>
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of work completion: _____			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective June 14, 2010 Questar Exploration and Production Company changed its name to QEP Energy Company. This name change involves only an internal corporate name change and no third party change of operator is involved. The same employees will continue to be responsible for operations of the properties described on the attached list. All operations will continue to be covered by bond numbers:

Federal Bond Number: 965002976 (BLM Reference No. ESB000024)

Utah State Bond Number: ~~965003033~~

Fee Land Bond Number: ~~965003033~~ } *965010695*

BIA Bond Number: ~~799446~~ *965010693*

The attached document is an all inclusive list of the wells operated by Questar Exploration and Production Company. As of June 14, 2010 QEP Energy Company assumes all rights, duties and obligations as operator of the properties as described on the list

NAME (PLEASE PRINT) <u>Morgan Anderson</u>	TITLE <u>Regulatory Affairs Analyst</u>
SIGNATURE <i>Morgan Anderson</i>	DATE <u>6/23/2010</u>

(This space for State use only)

**RECEIVED**

**JUN 28 2010**

DIV. OF OIL, GAS & MINING

(See Instructions on Reverse Side)

**APPROVED** *6/30/2009*  
*Earlene Russell*  
 Division of Oil, Gas and Mining  
 Earlene Russell, Engineering Technician

Questar Exploration Production Company (N5085) to QEP Energy Company (N3700)  
RED WASH  
effective June 14, 2010

well_name	sec	twp	rng	api	entity	mineral lease	type	stat	C
RW 41-33B	33	070S	230E	4304720060	5670	Federal	WD	A	
RW 43-28A	28	070S	220E	4304730058	5670	Federal	WD	A	
RW 34-27B	27	070S	230E	4304715142	5670	Federal	WI	A	
RW 14-13B	13	070S	230E	4304715144	5670	Federal	WI	A	
RW 41-20B	20	070S	230E	4304715146	5670	Federal	WI	A	
RW 21-23B	23	070S	230E	4304715151	5670	Federal	WI	A	
RW 23-14B	14	070S	230E	4304715161	5670	Federal	WI	A	
RW 41-28B	28	070S	230E	4304715182	5670	Federal	WI	A	
RW 23-18B	18	070S	230E	4304715210	5670	Federal	WI	A	
RW 43-21A	21	070S	220E	4304715219	5670	Federal	WI	A	
RW 41-24A	24	070S	220E	4304715221	5670	Federal	WI	A	
RW 13-22B	22	070S	230E	4304715261	5670	Federal	WI	A	
RW 23-15B	15	070S	230E	4304715267	5670	Federal	WI	A	
RW 21-20B	20	070S	230E	4304715281	5670	Federal	WI	A	
RW 33-13B	13	070S	230E	4304715289	5670	Federal	WI	A	
RW 21-34A	34	070S	220E	4304715303	5670	Federal	WI	I	
RW 14-24B	24	070S	230E	4304716472	5670	Federal	WI	A	
RW 41-27B	27	070S	230E	4304716473	5670	Federal	WI	I	
RW 43-28B	28	070S	230E	4304716475	5670	Federal	WI	S	
RW 23-23B	23	070S	230E	4304716476	5670	Federal	WI	A	
RW 12-24B	24	070S	230E	4304716477	5670	Federal	WI	A	
RW 33-22B	22	070S	230E	4304716479	5670	Federal	WI	A	
RW 41-21B	21	070S	230E	4304716482	5670	Federal	WI	A	
RW 41-15B	15	070S	230E	4304716495	5670	Federal	WI	I	
RW 21-21B	21	070S	230E	4304716496	5670	Federal	WI	A	
RW 14-21B	21	070S	230E	4304716497	5670	Federal	WI	A	
RW 41-14B	14	070S	230E	4304716498	5670	Federal	WI	A	
RW 21-27A	27	070S	220E	4304730103	5670	Federal	WI	A	
RW 34-22A	22	070S	220E	4304730458	5670	Federal	WI	A	
RW 24-26B	26	070S	230E	4304730518	5670	Federal	WI	I	
RW 31-35B	35	070S	230E	4304730519	5670	Federal	WI	A	
RW 33-26B	26	070S	230E	4304730521	5670	Federal	WI	I	
RW 13-26B	26	070S	230E	4304730522	5670	Federal	WI	A	
RW 11-36B	36	070S	230E	4304731052	5670	Federal	WI	A	
RW 31-26B	26	070S	230E	4304731077	5670	Federal	WI	A	
RW 42-35B	35	070S	230E	4304731081	5670	Federal	WI	I	
RW 23-17B	17	070S	230E	4304732739	5670	Federal	WI	A	
RW 43-17B	17	070S	230E	4304732980	5670	Federal	WI	A	
RW 43-18B	18	070S	230E	4304732982	5670	Federal	WI	A	
RW 13-19B	19	070S	230E	4304733497	5670	Federal	WI	A	
RW 13-20B	20	070S	230E	4304733498	5670	Federal	WI	A	
RW 33-19B	19	070S	230E	4304733499	5670	Federal	WI	A	
RW 33-20B	20	070S	230E	4304733500	5670	Federal	WI	A	
RW 11-19B	19	070S	230E	4304733552	5670	Federal	WI	A	

Bonds: BLM = ESB000024

BIA = 956010693

State = 965010695



Questar Exploration Production Company (N5085) to QEP Energy Company (N3700)  
RED WASH  
effective June 14, 2010

well_name	sec	twp	rng	api	entity	mineral lease	type	stat	C
RW 11-20B	20	070S	230E	4304733553	5670	Federal	WI	A	
RW 31-19B	19	070S	230E	4304733555	5670	Federal	WI	A	
RW 34-24A	24	070S	220E	4304733568	5670	Federal	WI	A	
RW 11-25A	25	070S	220E	4304733574	5670	Federal	WI	A	
RW 13-25A	25	070S	220E	4304733575	5670	Federal	WI	A	
RW 31-25A	25	070S	220E	4304733577	5670	Federal	WI	A	
RW 33-25A	25	070S	220E	4304733578	5670	Federal	WI	TA	
RW 11-29B	29	070S	230E	4304733590	5670	Federal	WI	A	
RW 12-24A	24	070S	220E	4304733591	5670	Federal	WI	A	
RW 34-13A	13	070S	220E	4304733593	5670	Federal	WI	A	
RW 11-30B	30	070S	230E	4304733785	5670	Federal	WI	A	
RW 31-30B	30	070S	230E	4304733788	5670	Federal	WI	A	
RW 33-30B	30	070S	230E	4304733790	5670	Federal	WI	A	

Bonds: BLM = ESB000024  
BIA = 956010693  
State = 965010695



## United States Department of the Interior

### BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, UT 84145-0155  
<http://www.blm.gov/ut/st/en.html>



IN REPLY REFER TO:  
3100  
(UT-922)

JUL 28 2010

#### Memorandum

To: Vernal Field Office, Price Field Office, Moab Field Office  
From: Chief, Branch of Minerals *Roger L. Bankert*  
Subject: Name Change Recognized

Attached is a copy of the Certificate of Name Change issued by the Texas Secretary of State and a decision letter recognizing the name change from the Eastern States Office. We have updated our records to reflect the name change in the attached list of leases.

The name change from **Questar Exploration and Production Company** into **QEP Energy Company** is effective June 8, 2010.

cc: MMS  
UDOGM

RECEIVED

AUG 16 2010

DIV OF OIL, GAS & MINERALS

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

UIC FORM 5

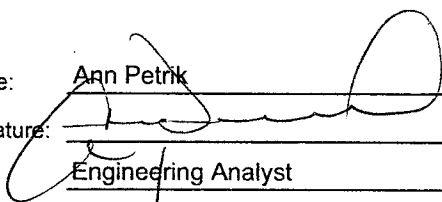
TRANSFER OF AUTHORITY TO INJECT

Well Name and Number See Attached List	API Number Attached
Location of Well Footage : Attached County : QQ, Section, Township, Range: State : UTAH	Field or Unit Name Attached Lease Designation and Number Attached

EFFECTIVE DATE OF TRANSFER: 6/14/2010

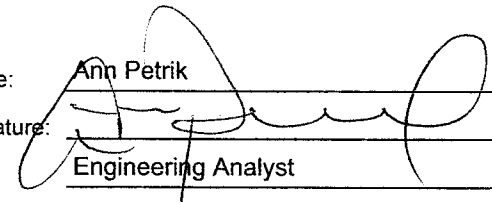
CURRENT OPERATOR

Company: Questar Exploration and Production Company  
Address: 1050 17th Street, Suite 500  
city Denver state CO zip 80265  
Phone: (303) 672-6900  
Comments:

Name: Ann Petrik  
Signature:   
Title: Engineering Analyst  
Date: 6/28/2010

NEW OPERATOR

Company: QEP Energy Company  
Address: 1050 17th Street, Suite 500  
city Denver state CO zip 80265  
Phone: (303) 672-6900  
Comments:

Name: Ann Petrik  
Signature:   
Title: Engineering Analyst  
Date: 6/28/2010

(This space for State use only)

Transfer approved by: \_\_\_\_\_

Approval Date: \_\_\_\_\_

Title: \_\_\_\_\_

Comments:

Accepted by the  
Utah Division of  
Oil, Gas and Mining

Date: 6/29/10  
By: D. Jones

EPA approved well

RECEIVED

JUN 28 2010

DIV. OF OIL, GAS & MINING



**QEP Energy Company**

Independence Plaza  
1050 17<sup>th</sup> Street, Suite 500  
Denver, CO 80265  
Tel 303-672-6900  
Fax 303-294-9632

**Rocky Mountain Region**

June 24, 2014

Ms. Sarah Roberts (8ENF-UFO)  
U.S. Environmental Protection Agency, Region 8  
1595 Wynkoop Street  
Denver, CO 80202-1129

RECEIVED

JUN 27 2014

DIV. OF OIL, GAS & MINING

RE: Notice of Violation for overdue MIT:

→ RW 33-19B (UT2903-04611)  
RW 11-36B (UT2000-02453)  
RW 33-20B (UT2895-04604)  
RW 34-24A (UT20898-04607)

43 047 33499  
19 7S 23E

Dear Ms. Roberts:

On May 7, 2014 QEP received a letter from the EPA stating that a review of the Annual Monitoring Reports for several of our UIC wells has resulted in a status change from Active to Temporarily Abandoned. Additionally, the letter identified the wells above as being out of compliance with the every two-year MIT requirement for wells with TA status. QEP has conducted MITs on three of the four wells, and the results are attached. The RW 34-24A was recompleted as an oil well. The attached subsequent report sundries submitted to the BLM and UDOGM detail this procedure.

QEP will continue to perform MITs on RW 33-19B, 11-36B and 33-20B every two years in order to comply with EPA rules. I have updated our internal database to reflect the new status designation.

If you have any questions or need additional information, please contact me at 303-308-3060. Thank you.

Sincerely,

Morgan Anderson  
Regulatory Affairs Analyst

Enclosures: MIT Casing or Annulus Pressure Test Form  
MIT Results Spreadsheet with Pressure Test Chart  
BLM and UDOGM Subsequent Report Sundries

# MECHANICAL INTEGRITY TEST CASING OR ANNULUS PRESSURE TEST

U.S. ENVIRONMENTAL PROTECTION AGENCY  
UNDERGROUND INJECTION CONTROL PROGRAM, UIC IMPLEMENTATION SECTION (8P-W-GW)  
999 18TH STREET, SUITE 300, DENVER, CO. 80202-2466

EPA WITNESS: NONE DATE: 6/17/2014 TIME: 10:00 ☒ AM ☐ PM

TEST CONDUCTED BY: TONY JENNE QEP ENERGY COMPANY

OTHERS PRESENT: CODY HAGEL K&E HOT OIL  
API NUMBER- 43-047-33499 EPA ID NUMBER- UT2903-04611

WELL NAME: <u>RW 33-19B</u>	TYPE: <input checked="" type="checkbox"/> ER <input type="checkbox"/> SWD	STATUS: <input type="checkbox"/> AC <input checked="" type="checkbox"/> TA <input type="checkbox"/> UC
FIELD: <u>RED WASH</u>	LEASE: <u>UTU02030</u>	UNIT: <u>8920007610</u>
WELL LOCATION: <u>NW/4, SE/4, SEC 19, T7S</u> <input type="checkbox"/> N <input checked="" type="checkbox"/> S <u>R23E</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W COUNTY: <u>UINTAH</u> STATE: <u>UTAH</u>		
OPERATOR: <u>QEP ENERGY COMPANY</u>		
LAST MIT: <u>5/9/2007</u>	MAXIMUM ALLOWABLE PRESSURE:	<u>2085</u> PSIG

IS THIS A REGULAR SCHEDULED TEST? ☒ YES ☐ NO

INITIAL TEST FOR PERMIT? ☐ YES ☒ NO

TEST AFTER WELL WORK? ☐ YES ☒ NO

WELL INJECTING DURING TEST? ☐ YES ☒ NO IF YES, RATE: \_\_\_\_\_ BPD

PRE-TEST CASING/TUBING ANNULUS PRESSURE: 8 :PSIG

MIT DATA TABLE	TEST #1	TEST #2	TEST #3
TUBING	PRESSURE		
INITIAL PRESSURE	<u>187</u> PSIG	PSIG	PSIG
END OF TEST PRESSURE	<u>185</u> PSIG	PSIG	PSIG

CASING/TUBING	ANNULUS	TUBING	
0 MINUTES	<u>1145.5</u> PSIG	<u>195.8</u> PSIG	PSIG
5 MINUTES	<u>1129.1</u> PSIG	<u>192.7</u> PSIG	PSIG
10 MINUTES	<u>1115.8</u> PSIG	<u>191.7</u> PSIG	PSIG
15 MINUTES	<u>1105</u> PSIG	<u>191.3</u> PSIG	PSIG
20 MINUTES	<u>1095</u> PSIG	<u>191</u> PSIG	PSIG
25 MINUTES	<u>1085.6</u> PSIG	<u>190.8</u> PSIG	PSIG
30 MINUTES	<u>1075.6</u> PSIG	<u>190.7</u> PSIG	PSIG
MINUTES	PSIG	PSIG	PSIG
MINUTES	PSIG	PSIG	PSIG

RESULT	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL
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DOES THE ANNULUS PRESSURE BUILD BACK UP AFTER THE TEST? ☐ YES ☒ NO

3000 PSIG

Date	Time	CASING PRESSURE	TUBING PRESSURE	TEMP
6/17/2014	10:12:07	8	187	73
6/17/2014	10:12:23	472.14		73
6/17/2014	10:12:39	473.15		73
6/17/2014	10:12:55	585.7		73
6/17/2014	10:13:11	849.1		73
6/17/2014	10:13:27	1110		73
6/17/2014	10:13:43	1144.9		73
6/17/2014	10:13:59	1150.1		73
6/17/2014	10:14:15	1149.4		73
6/17/2014	10:14:31	1146.8		73
6/17/2014	10:14:47	1145.5	195.8	73
6/17/2014	10:15:03	1144.8		73
6/17/2014	10:15:19	1143.7		73
6/17/2014	10:15:35	1142.6		73
6/17/2014	10:15:51	1141.6		73
6/17/2014	10:16:07	1140.7		73
6/17/2014	10:16:23	1139.7		73
6/17/2014	10:16:39	1138.8		73
6/17/2014	10:16:55	1138		73
6/17/2014	10:17:11	1137.1		73
6/17/2014	10:17:27	1136.2		73
6/17/2014	10:17:43	1135.4		73
6/17/2014	10:17:59	1134.6		73
6/17/2014	10:18:15	1133.7		73
6/17/2014	10:18:31	1133		73
6/17/2014	10:18:47	1132.2		73
6/17/2014	10:19:03	1131.4		73
6/17/2014	10:19:19	1130.6		73
6/17/2014	10:19:35	1129.9		73
6/17/2014	10:19:51	1129.1	192.7	73
6/17/2014	10:20:07	1128.4		73
6/17/2014	10:20:23	1127.6		73
6/17/2014	10:20:39	1126.9		73
6/17/2014	10:20:55	1126.1		73
6/17/2014	10:21:11	1125.4		73
6/17/2014	10:21:27	1124.7		73
6/17/2014	10:21:43	1124		73
6/17/2014	10:21:59	1123.2		73
6/17/2014	10:22:15	1122.6		73
6/17/2014	10:22:31	1121.9		73
6/17/2014	10:22:47	1121.2		73
6/17/2014	10:23:03	1120.5		73

Date	Time	CASING PRESSURE	TUBING PRESSURE	TEMP
6/17/2014	10:23:19	1119.8		73
6/17/2014	10:23:35	1119.1		73
6/17/2014	10:23:51	1118.5		73
6/17/2014	10:24:07	1117.8		73
6/17/2014	10:24:23	1117.1		73
6/17/2014	10:24:39	1116.5		73
6/17/2014	10:24:55	1115.8	191.7	73
6/17/2014	10:25:11	1115.1		73
6/17/2014	10:25:27	1114.5		73
6/17/2014	10:25:43	1113.8		73
6/17/2014	10:25:59	1113.2		73
6/17/2014	10:26:15	1112.5		73
6/17/2014	10:26:31	1111.9		73
6/17/2014	10:26:47	1111.3		73
6/17/2014	10:27:03	1110.7		73
6/17/2014	10:27:19	1110.1		73
6/17/2014	10:27:35	1109.5		73
6/17/2014	10:27:51	1108.9		73
6/17/2014	10:28:07	1108.3		73
6/17/2014	10:28:23	1107.7		73
6/17/2014	10:28:39	1107.2		73
6/17/2014	10:28:55	1106.6		73
6/17/2014	10:29:11	1106.1		73
6/17/2014	10:29:27	1105.5		73
6/17/2014	10:29:43	1105	191.3	73
6/17/2014	10:29:59	1104.4		73
6/17/2014	10:30:15	1103.9		73
6/17/2014	10:30:31	1103.3		73
6/17/2014	10:30:47	1102.8		73
6/17/2014	10:31:03	1102.2		73
6/17/2014	10:31:19	1101.7		73
6/17/2014	10:31:35	1101.2		73
6/17/2014	10:31:51	1100.7		73
6/17/2014	10:32:07	1100.1		73
6/17/2014	10:32:23	1099.6		73
6/17/2014	10:32:39	1099		73
6/17/2014	10:32:55	1098.5		73
6/17/2014	10:33:11	1098		73
6/17/2014	10:33:27	1097.5		73
6/17/2014	10:33:43	1097		73
6/17/2014	10:33:59	1096.5		73
6/17/2014	10:34:15	1096		73
6/17/2014	10:34:31	1095.5		73
6/17/2014	10:34:47	1095	191	73

Date	Time	CASING PRESSURE	TUBING PRESSURE	TEMP
6/17/2014	10:35:03	1094.5		73
6/17/2014	10:35:19	1094		73
6/17/2014	10:35:35	1093.5		73
6/17/2014	10:35:51	1092.9		73
6/17/2014	10:36:07	1092.5		73
6/17/2014	10:36:23	1092		73
6/17/2014	10:36:39	1091.5		73
6/17/2014	10:36:55	1091		73
6/17/2014	10:37:11	1090.5		73
6/17/2014	10:37:27	1090		73
6/17/2014	10:37:43	1089.5		73
6/17/2014	10:37:59	1089		73
6/17/2014	10:38:15	1088.5		73
6/17/2014	10:38:31	1088		73
6/17/2014	10:38:47	1087.5		73
6/17/2014	10:39:03	1087		73
6/17/2014	10:39:19	1086.6		73
6/17/2014	10:39:35	1086		73
6/17/2014	10:39:51	1085.6	190.8	73
6/17/2014	10:40:07	1085.1		73
6/17/2014	10:40:23	1084.6		73
6/17/2014	10:40:39	1084.1		73
6/17/2014	10:40:55	1083.6		73
6/17/2014	10:41:11	1083.1		73
6/17/2014	10:41:27	1082.6		73
6/17/2014	10:41:43	1082.1		73
6/17/2014	10:41:59	1081.6		73
6/17/2014	10:42:15	1081.1		73
6/17/2014	10:42:31	1080.6		73
6/17/2014	10:42:47	1080.1		73
6/17/2014	10:43:03	1079.6		73
6/17/2014	10:43:19	1079		73
6/17/2014	10:43:35	1078.5		73
6/17/2014	10:43:51	1078.1		73
6/17/2014	10:44:07	1077.6		73
6/17/2014	10:44:23	1077.1		73
6/17/2014	10:44:39	1076.6		73
6/17/2014	10:44:55	1076.1		73
6/17/2014	10:45:11	1075.6	190.7	73
6/17/2014	10:45:27	1075.1		73
6/17/2014	10:45:43	1074.6		73
6/17/2014	10:45:59	1074.1		73
6/17/2014	10:46:15	1073.6		73
6/17/2014	10:46:31	1073.1		73



Date	Time	CASING PRESSURE	TUBING PRESSURE	TEMP
6/17/2014	10:46:47	1072.6		73
6/17/2014	10:47:03	1072.1		73
6/17/2014	10:47:19	1071.7		73
6/17/2014	10:47:35	1071.2		73
6/17/2014	10:47:51	1070.7		73
6/17/2014	10:48:07	1070.2		73
6/17/2014	10:48:23	1069.7		73
6/17/2014	10:48:39	1069.3		73
6/17/2014	10:48:55	1068.8		73
6/17/2014	10:49:11	1068.3		73
6/17/2014	10:49:27	1067.8		73
6/17/2014	10:49:43	1067.2		73
6/17/2014	10:49:59	1066.5		73
6/17/2014	10:50:15	1065.9		73
6/17/2014	10:50:31	663.6		73
6/17/2014	10:50:47	6.922		73
6/17/2014	10:51:03	0		73
6/17/2014	10:51:19	0		73
6/17/2014	10:51:35	0		73
6/17/2014	10:51:51	0		73
6/17/2014	10:52:07	0	185	73
6/17/2014	10:52:23	0		73
6/17/2014	10:52:39	0		73
6/17/2014	10:52:55	0		73
6/17/2014	10:53:11	0		73
6/17/2014	10:53:27	0		73
6/17/2014	10:53:43	0		73
6/17/2014	10:53:59	0		73
6/17/2014	10:54:15	0		73
6/17/2014	10:54:31	0		73
6/17/2014	10:54:47	0		73
6/17/2014	10:55:03	0		73
6/17/2014	10:55:19	0		73
6/17/2014	10:55:35	0		73
6/17/2014	10:55:51	0		73
6/17/2014	10:56:07	0		73
6/17/2014	10:56:23	0		73
6/17/2014	10:56:39	0		73
6/17/2014	10:56:55	0		73
6/17/2014	10:57:11	0		73
6/17/2014	10:57:27	0		73
6/17/2014	10:57:43	0		73
6/17/2014	10:57:59	0		73
6/17/2014	10:58:15	0		73

Date	Time	CASING PRESSURE	TUBING PRESSURE	TEMP
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